10/529569
PNC P1/4

(FILE 'HOME' ENTERED AT 16:04:39 ON 16 JAN 2007)

FILE 'REGISTRY' ENTERED AT 16:04:52 ON 16 JAN 2007
L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 16:05:29 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 10 TO ITERATE

100.0% PROCESSED 10 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 11 TO 389
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 16:05:36 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 214 TO ITERATE

100.0% PROCESSED 214 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 172.55 172.76

FILE 'CAPLUS' ENTERED AT 16:05:52 ON 16 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 16 Jan 2007 VOL 146 ISS 4
FILE LAST UPDATED: 15 Jan 2007 (20070115/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

10/529569

ING P2/4

http://www.cas.org/infopolicy.html

```
=> s doppelt, pascal/au
L4          33 DOPPELT, PASCAL/AU

=> s l4 and "fluorine-free"
        105016 "FLUORINE"
       1288898 "FREE"
           456 "FLUORINE-FREE"
                 ("FLUORINE"(W)"FREE")
L5            1 L4 AND "FLUORINE-FREE"

=> d bib abs

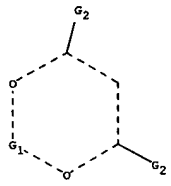
L5   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2004:271188  CAPLUS
DN   140:295114
TI   New fluorine-free metal complexes for gas-phase
     chemical deposition of metals
IN   Doppelt, Pascal
PA   Centre National de la Recherche Scientifique CNRS, Fr.
SO   Fr. Demande, 21 pp.
     CODEN: FRXXBL
DT   Patent
LA   French
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   FR 2845088           A1     20040402    FR 2002-12059           20020930
     FR 2845088           B1     20041203
     CA 2500386           A1     20040408    CA 2003-2500386         20030925
     WO 2004029061        A1     20040408    WO 2003-FR2820          20030925
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003276374        A1     20040419    AU 2003-276374          20030925
     EP 1551851           A1     20050713    EP 2003-798226          20030925
     EP 1551851           B1     20060802
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2006501280        T      20060112    JP 2004-539140          20030925
     AT 334990            T      20060815    AT 2003-798226          20030925
     US 2006121709        A1     20060608    US 2005-529569          20050929
PRAI FR 2002-12059        A      20020930
     WO 2003-FR2820       W      20030925
OS   MARPAT 140:295114
GI
```

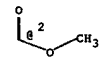
$M^{+1}(R'-CO-C(R)-CO-R'')^{-1}$ .L I

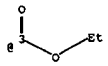
AB The invention has as an aim of new complexes of copper(I) or silver(I) and their use for chemical plating in gas phase of copper or silver metals practically free from impurities, complexes of structure I , in which M is

10/529569

PNG 3/4



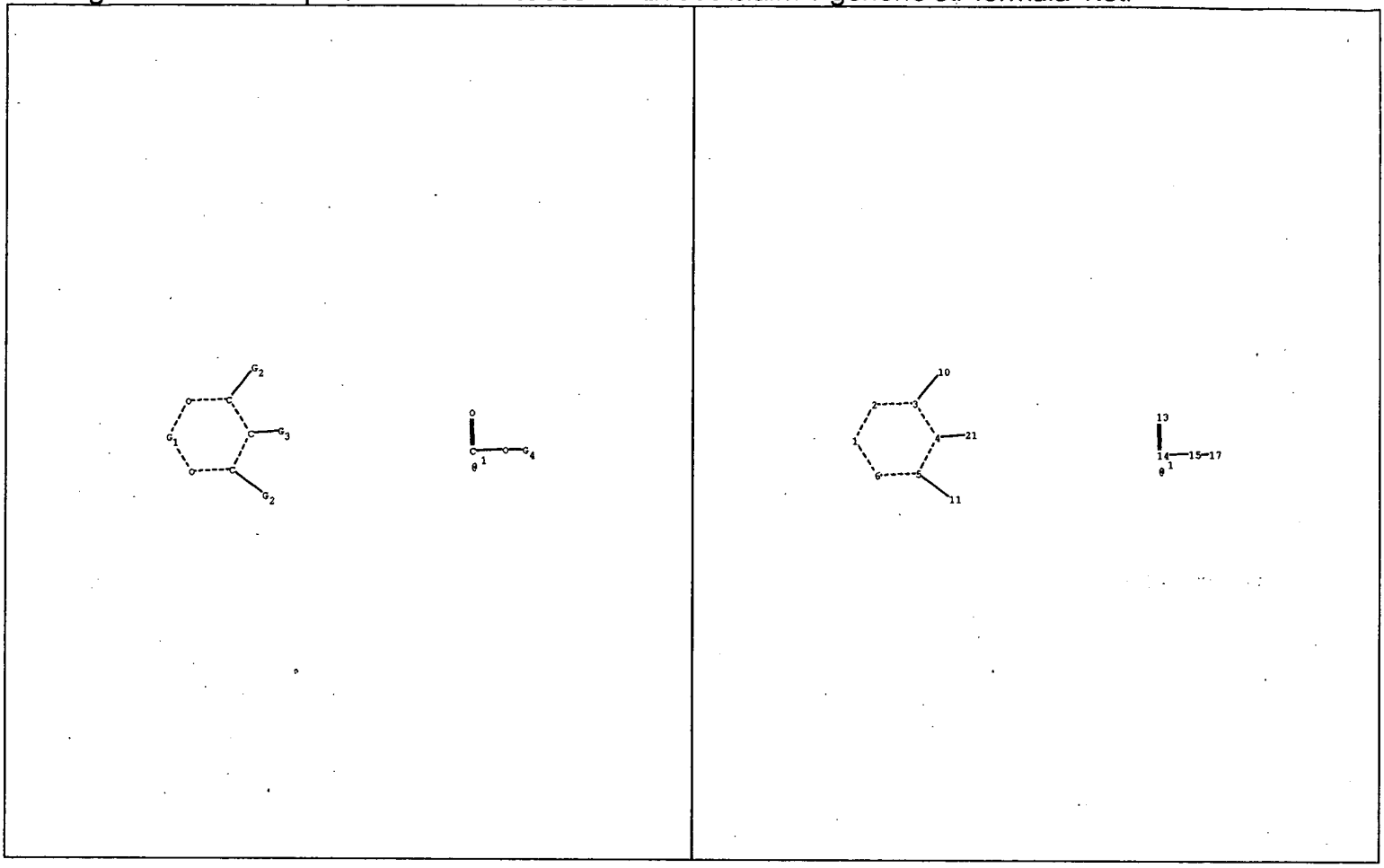




Cu or Ag; R' and R", identical or different, represent a group chosen from among a C1-8 alkyl, a -OR''' group, in which R''' is C1-8 alkyl; R is a group chosen from among OR"", in which R"" is C1-8 alkyl, a nitro group NO2, an aldehyde function -CHO. an ester function -COOR"", in which R"" is C1-8 alkyl, and L is a ligand of stabilization.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

C:\Program Files\Stnexp\Queries\2007 cases\10529569\claim 1 generic str formula 1.str



chain nodes :
10 11 13 14 15 17 21
ring nodes :
1 2 3 4 5 6
chain bonds :
3-10 4-21 5-11 13-14 14-15 15-17
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
1-2 1-6 2-3 3-4 3-10 4-5 4-21 5-6 5-11 13-14 14-15 15-17

G1:Ag,Cu

G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO,PhO

G3:MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO,PhO,CHO,NO2,[*1]

G4:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,Ph

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 10:CLASS 11:CLASS 13:CLASS 14:CLASS 15:CLASS
17:CLASS 21:CLASS

10529569 FlourineFreeMetallicComplexes for GasPhaseChemDepo

L1 STRUCTURE UPLOADED

=> dis l1
L1 HAS NO ANSWERS
L1 STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sam
SAMPLE SEARCH INITIATED 17:52:56 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 360 TO 1080
PROJECTED ANSWERS: 2 TO 124

L2 2 SEA SSS SAM L1

=> dis bib abs
'BIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)

IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

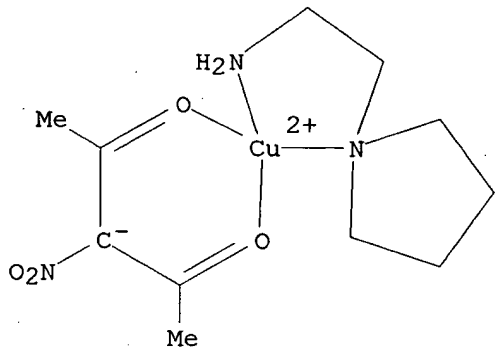
SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):ide

L2 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-62-8 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1-pyrrolidineethanamine-Nα,N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C11 H20 Cu N3 O4
CI CCS, COM
SR CA



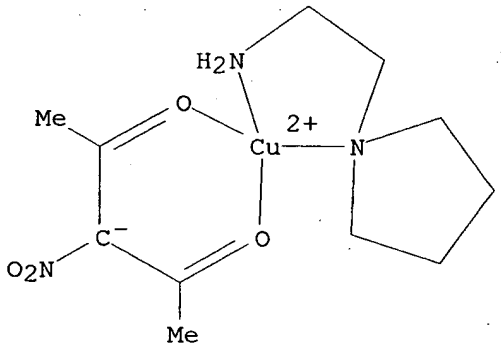
=> dis his

(FILE 'HOME' ENTERED AT 17:51:45 ON 16 JAN 2007)

```
     FILE 'REGISTRY' ENTERED AT 17:51:56 ON 16 JAN 2007
L1              STRUCTURE UPLOADED
L2            2 S L1 SAM

=> dis l2

L2   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   170659-62-8  REGISTRY
ED   Entered STN:  28 Nov 1995
CN   Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1-pyrrolidineethanamine-
     Nα,N1)-, (SP-4-3)- (9CI)  (CA INDEX NAME)
MF   C11 H20 Cu N3 O4
CI   CCS, COM
SR   CA
```

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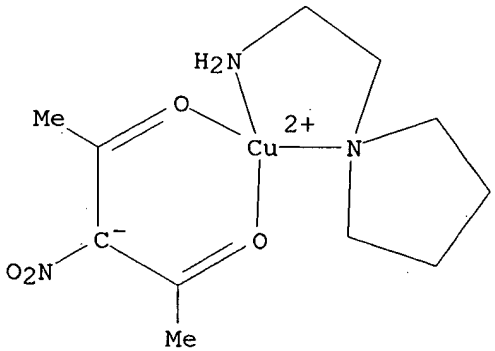
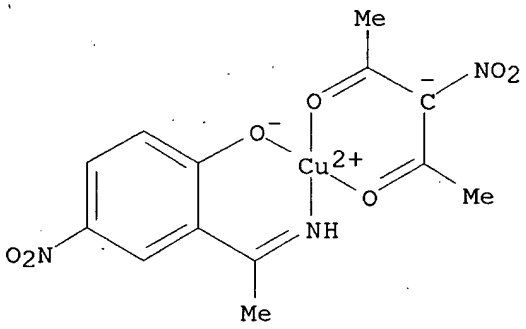
=> dis l2 1-2

L2   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   170659-62-8  REGISTRY
ED   Entered STN:  28 Nov 1995
CN   Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1-pyrrolidineethanamine-
     Nα,N1)-, (SP-4-3)- (9CI)  (CA INDEX NAME)
MF   C11 H20 Cu N3 O4
CI   CCS, COM
SR   CA
```



L2 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN
RN 65588-32-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, [2-(1-iminoethyl)-4-nitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
CN Phenol, 2-(1-iminoethyl)-4-nitro-, copper complex
MF C13 H13 Cu N3 O7
CI CCS
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

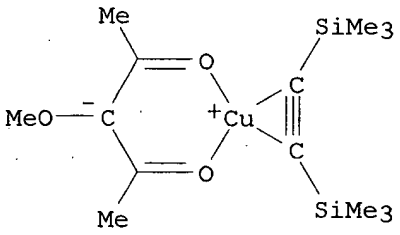
=> s l1 full
FULL SEARCH INITIATED 17:54:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 675 TO ITERATE

100.0% PROCESSED 675 ITERATIONS 49 ANSWERS
SEARCH TIME: 00.00.01

L3 49 SEA SSS FUL L1

=> d l3 1-49

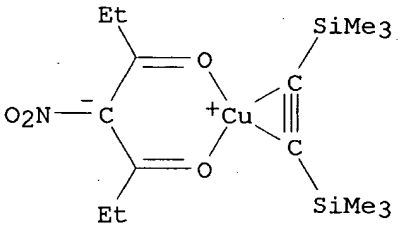
L3 ANSWER 1 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 675200-72-3 REGISTRY
ED Entered STN: 14 Apr 2004
CN Copper, [(η2-1,2-ethynediyl)bis[trimethylsilane]](3-methoxy-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)
MF C14 H27 Cu O3 Si2
CI CCS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

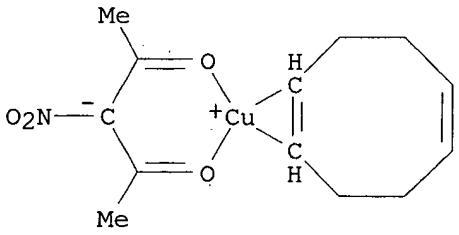
L3 ANSWER 2 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 675200-71-2 REGISTRY
ED Entered STN: 14 Apr 2004
CN Copper, [(η2-1,2-ethynediyl)bis[trimethylsilane]](4-nitro-3,5-heptanedionato-κO,κO')- (9CI) (CA INDEX NAME)
MF C15 H28 Cu N O4 Si2
CI CCS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

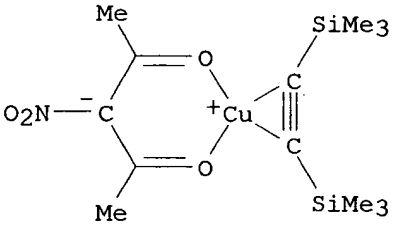
L3 ANSWER 3 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 675200-70-1 REGISTRY
ED Entered STN: 14 Apr 2004
CN Copper, [(1,2-η)-1,5-cyclooctadiene](3-nitro-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)
MF C13 H18 Cu N O4
CI CCS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

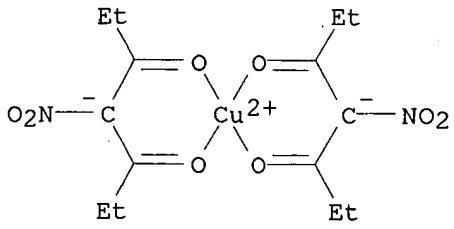
L3 ANSWER 4 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 675200-69-8 REGISTRY
ED Entered STN: 14 Apr 2004
CN Copper, [(η2-1,2-ethynediyl)bis[trimethylsilane]](3-nitro-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)
MF C13 H24 Cu N O4 Si2
CI CCS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

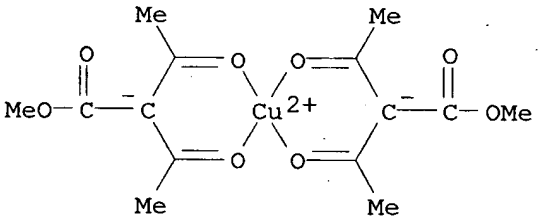
L3 ANSWER 5 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 675200-68-7 REGISTRY
ED Entered STN: 14 Apr 2004
CN Copper, bis(4-nitro-3,5-heptanedionato-κO,κO')- (9CI) (CA INDEX NAME)
MF C14 H20 Cu N2 O8
CI CCS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

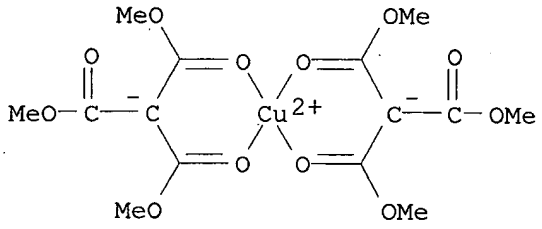
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 6 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 461031-90-3 REGISTRY
ED Entered STN: 14 Oct 2002
CN Copper, bis[methyl 2-(acetyl-κO)-3-(oxo-κO)butanoato]- (9CI) (CA INDEX NAME)
MF C14 H18 Cu O8
CI CCS
SR CA
LC STN Files: CA, CAPLUS



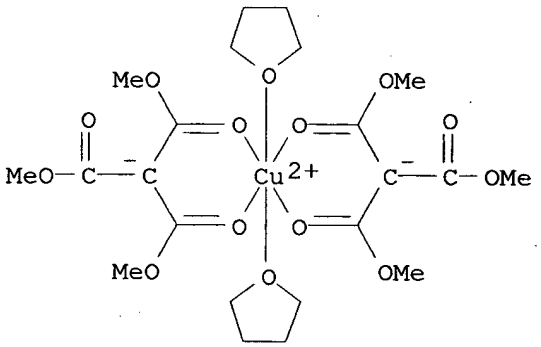
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 7 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 342805-83-8 REGISTRY
ED Entered STN: 21 Jun 2001
CN Copper, bis(trimethyl methanetricarboxylato-κO''',κO'''')-, (SP-4-1)- (9CI) (CA INDEX NAME)
MF C14 H18 Cu O12
CI CCS
SR CA
LC STN Files: CA, CAPLUS, CASREACT



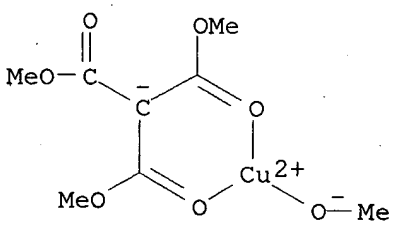
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 8 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 342805-82-7 REGISTRY
ED Entered STN: 21 Jun 2001
CN Copper, bis(tetrahydrofuran)bis(trimethyl methanetricarboxylato-κO''',κO'''')-, (OC-6-11)- (9CI) (CA INDEX NAME)
MF C22 H34 Cu O14
CI CCS
SR CA
LC STN Files: CA, CAPLUS, CASREACT



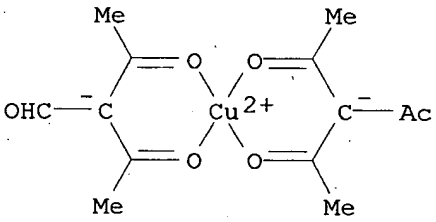
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 9 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 342805-80-5 REGISTRY
ED Entered STN: 21 Jun 2001
CN Copper, methoxy(trimethyl methanetricarboxylato-κO''',κO'''')-(9CI) (CA INDEX NAME)
MF C8 H12 Cu O7
CI CCS
SR CA
LC STN Files: CA, CAPLUS, CASREACT

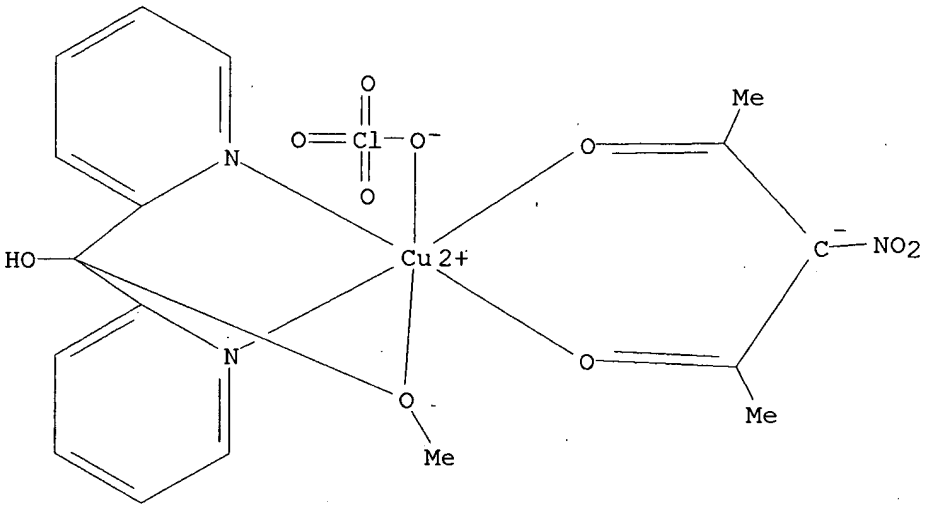


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 10 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 306770-10-5 REGISTRY
ED Entered STN: 05 Dec 2000
CN Copper, [2-(acetyl-κO)-3-(oxo-κO)butanalato](3-acetyl-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)
MF C13 H16 Cu O6
CI CCS
SR Chemical Library
Supplier: Interbioscreen Ltd.
LC STN Files: CHEMCATS

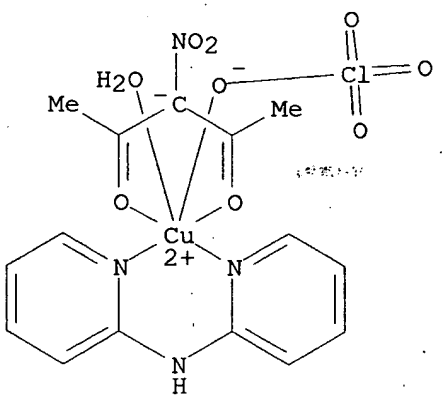


L3 ANSWER 11 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 207454-72-6 REGISTRY
ED Entered STN: 21 Jun 1998
CN Copper, [α-(methoxy-κO)-α-(2-pyridinyl-κN)-2-pyridinemethanol-κN1](3-nitro-2,4-pentanedionato-κO,κO')(perchlorato-κO)-, (OC-6-34)- (9CI) (CA INDEX NAME)
MF C17 H18 Cl Cu N3 O10
CI CCS
SR CA
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 12 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 207454-65-7 REGISTRY
ED Entered STN: 21 Jun 1998
CN Copper, aqua(3-nitro-2,4-pentanedionato-κO,κO')(perchlorato-κO)[N-(2-pyridinyl-κN)-2-pyridinamine-κN1]-, (OC-6-34)-(9CI) (CA INDEX NAME)
MF C15 H17 Cl Cu N4 O9
CI CCS
SR CA
LC STN Files: CA, CAPLUS



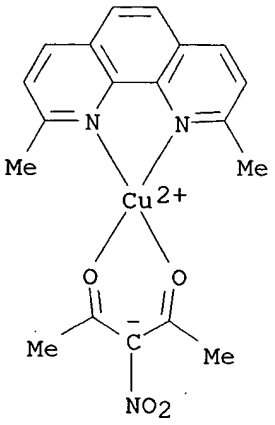
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 13 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-73-1 REGISTRY
ED Entered STN: 28 Nov 1995

CN Copper(1+), (2,9-dimethyl-1,10-phenanthroline-N1,N10)(3-nitro-2,4-pentanedionato-O2,O4)-, perchlorate (9CI) (CA INDEX NAME)
MF C19 H18 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

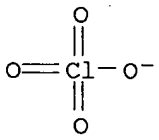
CM 1

CRN 170659-72-0
CMF C19 H18 Cu N3 O4
CCI CCS



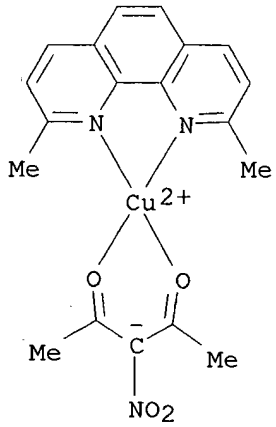
CM 2

CRN 14797-73-0
CMF Cl O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

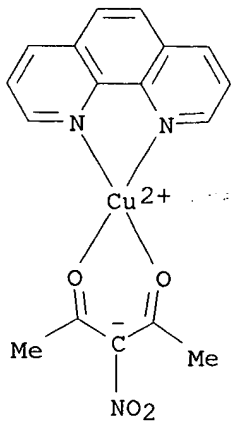
L3 ANSWER 14 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-72-0 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (2,9-dimethyl-1,10-phenanthroline-N1,N10)(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
MF C19 H18 Cu N3 O4
CI CCS, COM
SR CA



L3 ANSWER 15 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-71-9 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1,10-phenanthroline-N1,N10)-, (SP-4-2)-, perchlorate (9CI) (CA INDEX NAME)
MF C17 H14 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

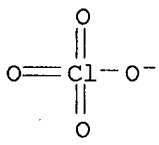
CM 1

CRN 170659-70-8
CMF C17 H14 Cu N3 O4
CCI CCS



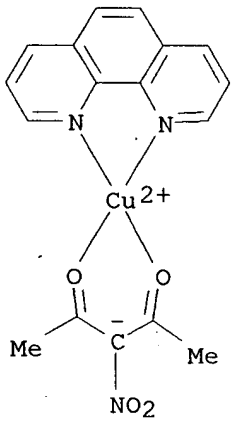
CM 2

CRN 14797-73-0
CMF Cl O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

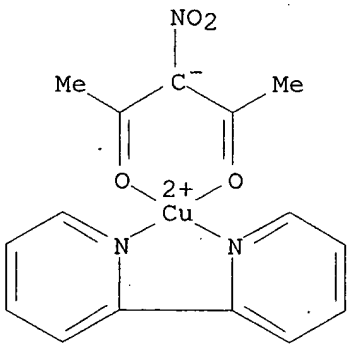
L3 ANSWER 16 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-70-8 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1,10-phenanthroline-N1,N10)-, (SP-4-2)- (9CI) (CA INDEX NAME)
MF C17 H14 Cu N3 O4
CI CCS, COM
SR CA



L3 ANSWER 17 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-69-5 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (2,2'-bipyridine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)
MF C15 H14 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

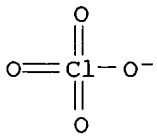
CM 1

CRN 170659-68-4
CMF C15 H14 Cu N3 O4
CCI CCS



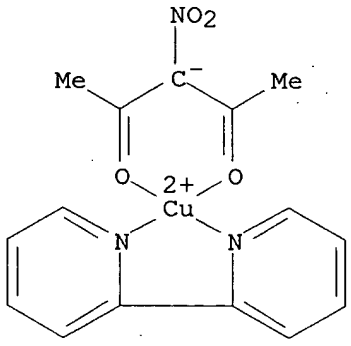
CM 2

CRN 14797-73-0
CMF Cl O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 18 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-68-4 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (2,2'-bipyridine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C15 H14 Cu N3 O4
CI CCS, COM
SR CA

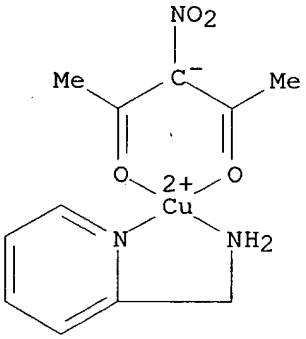


L3 ANSWER 19 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN

RN 170659-67-3 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(2-pyridinemethanamine-N1,N2)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)
MF C11 H14 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

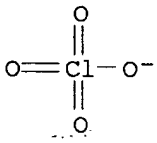
CM 1

CRN 170659-66-2
CMF C11 H14 Cu N3 O4
CCI CCS



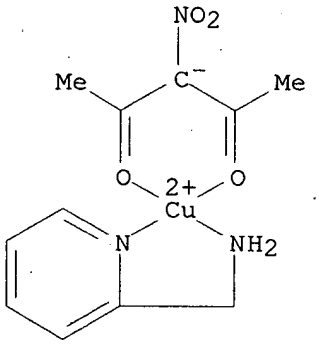
CM 2

CRN 14797-73-0
CMF Cl O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

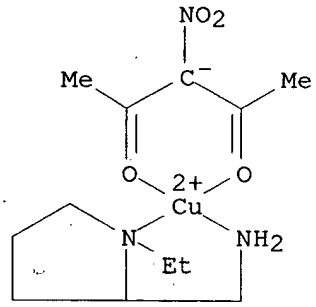
L3 ANSWER 20 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-66-2 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(2-pyridinemethanamine-N1,N2)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C11 H14 Cu N3 O4
CI CCS, COM
SR CA



L3 ANSWER 21 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-65-1 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (1-ethyl-2-pyrrolidinemethanamine-Nα,N1)(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)
MF C12 H22 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

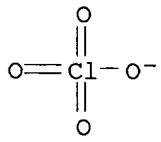
CM 1

CRN 170659-64-0
CMF C12 H22 Cu N3 O4
CCI CCS



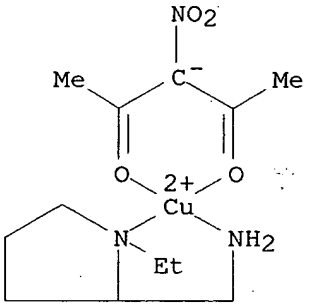
CM 2

CRN 14797-73-0
CMF Cl O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

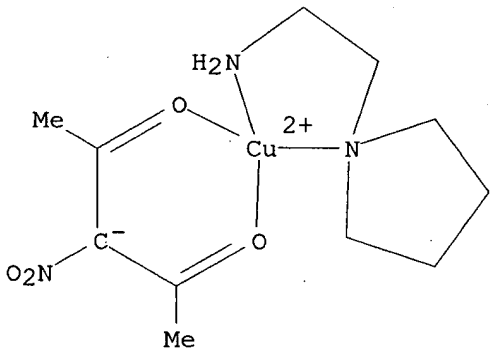
L3 ANSWER 22 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-64-0 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (1-ethyl-2-pyrrolidinemethanamine-Nα,N1)(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C12 H22 Cu N3 O4
CI CCS, COM
SR CA



L3 ANSWER 23 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-63-9 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1-pyrrolidineethanamine-Nα,N1)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)
MF C11 H20 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

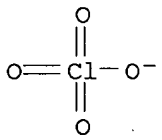
CM 1

CRN 170659-62-8
CMF C11 H20 Cu N3 O4
CCI CCS



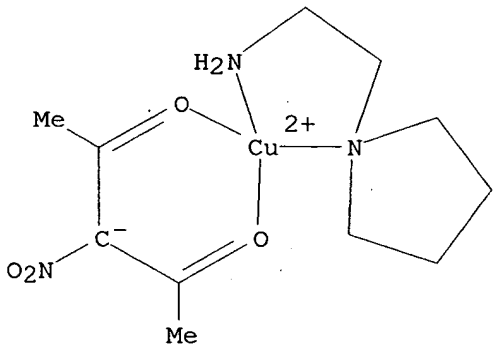
CM 2

CRN 14797-73-0
CMF Cl O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

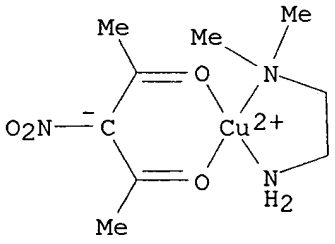
L3 ANSWER 24 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 170659-62-8 REGISTRY
ED Entered STN: 28 Nov 1995
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1-pyrrolidineethanamine-Nα,N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C11 H20 Cu N3 O4
CI CCS, COM
SR CA



L3 ANSWER 25 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 152767-34-5 REGISTRY
ED Entered STN: 04 Feb 1994
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-κN,κN')(3-nitro-2,4-pentanedionato-κO,κO')-, (SP-4-3)-, nitrate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, nitrate
MF C9 H18 Cu N3 O4 . N O3
SR CA
LC STN Files: CA, CAPLUS

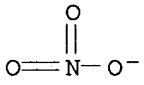
CM 1

CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



CM 2

CRN 14797-55-8
CMF N O3

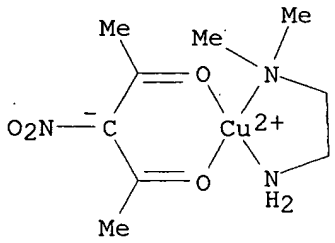


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 26 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 152748-68-0 REGISTRY
ED Entered STN: 04 Feb 1994
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)
MF C9 H18 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

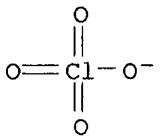
CM 1

CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



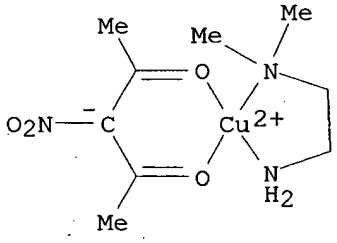
CM 2

CRN 14797-73-0
CMF Cl O4

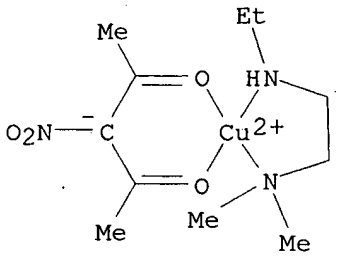


2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 27 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 152748-67-9 REGISTRY
ED Entered STN: 04 Feb 1994
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C9 H18 Cu N3 O4
CI CCS, COM
SR CA



L3 ANSWER 28 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 148379-28-6 REGISTRY
ED Entered STN: 30 Jun 1993
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, chloride, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C11 H22 Cu N3 O4 . Cl
CI CCS
SR CA
LC STN Files: CA, CAPLUS
CRN (148379-25-3)

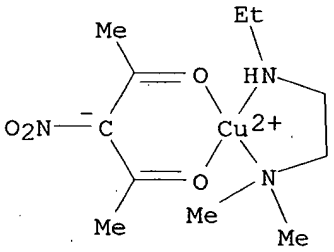


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 29 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 148379-27-5 REGISTRY
ED Entered STN: 30 Jun 1993
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, nitrate (9CI) (CA INDEX NAME)
MF C11 H22 Cu N3 O4 . N O3
SR CA
LC STN Files: CA, CAPLUS

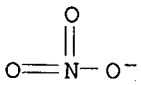
CM 1

CRN 148379-25-3
CMF C11 H22 Cu N3 O4
CCI CCS



CM 2

CRN 14797-55-8
CMF N O3

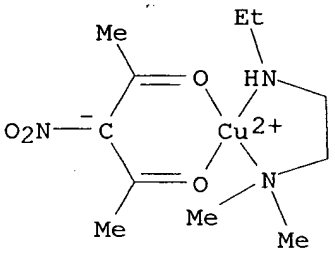


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 30 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 148379-26-4 REGISTRY
ED Entered STN: 30 Jun 1993
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)
MF C11 H22 Cu N3 O4 . Cl O4
SR CA
LC STN Files: CA, CAPLUS

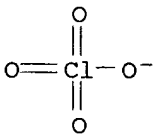
CM 1

CRN 148379-25-3
CMF C11 H22 Cu N3 O4
CCI CCS



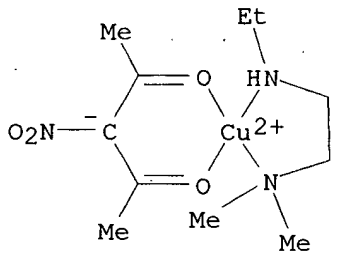
CM 2

CRN 14797-73-0
CMF Cl O4

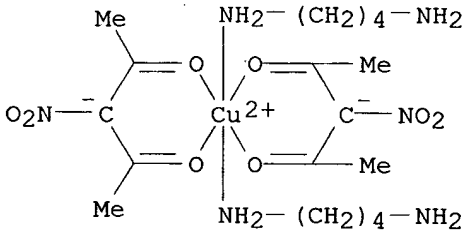


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 31 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 148379-25-3 REGISTRY
ED Entered STN: 30 Jun 1993
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)- (9CI) (CA INDEX NAME)
MF C11 H22 Cu N3 O4
CI CCS, COM
SR CA

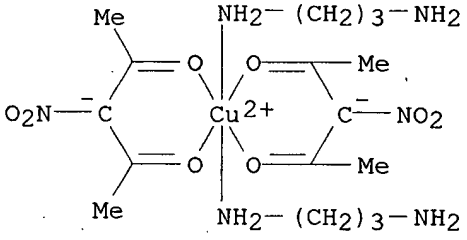


L3 ANSWER 32 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 138072-61-4 REGISTRY
ED Entered STN: 27 Dec 1991
CN Copper, bis(1,4-butanediamine-N)bis(3-nitro-2,4-pentanedionato-O2,O4)-(9CI) (CA INDEX NAME)
MF C18 H36 Cu N6 O8
CI CCS
SR CA
LC STN Files: CA, CAPLUS



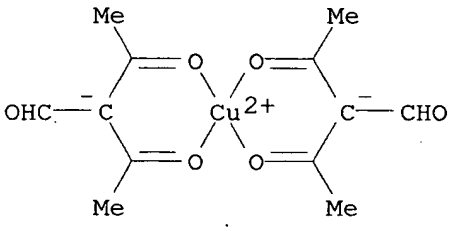
3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 33 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 138055-62-6 REGISTRY
ED Entered STN: 27 Dec 1991
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)bis(1,3-propanediamine-N)-(9CI) (CA INDEX NAME)
MF C16 H32 Cu N6 O8
CI CCS
SR CA
LC STN Files: CA, CAPLUS



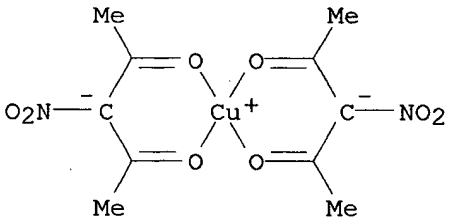
4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 34 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 128303-88-8 REGISTRY
ED Entered STN: 20 Jul 1990
CN Acetoacetaldehyde, 2-acetyl-, Cu deriv. (6CI) (CA INDEX NAME)
MF C12 H14 Cu O6
CI CCS
SR CAOLD
LC STN Files: CAOLD



1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

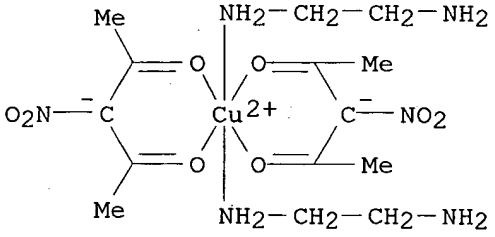
L3 ANSWER 35 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 118168-01-7 REGISTRY
ED Entered STN: 23 Dec 1988
CN Cuprate(1-), bis(3-nitro-2,4-pentanedionato-O2,O4)-, (T-4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
MF C10 H12 Cu N2 O8
CI CCS
SR CA
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

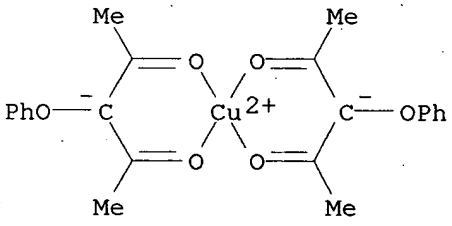
L3 ANSWER 36 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 110873-86-4 REGISTRY
ED Entered STN: 24 Oct 1987
CN Copper, bis(1,2-ethanediamine-N)bis(3-nitro-2,4-pentanedionato-O2,O4)-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN 2,4-Pentanedione, 3-nitro-, copper complex
OTHER NAMES:
CN Bis(ethylenediamine)bis(3-nitro-2,4-pentanedionato)copper
MF C14 H28 Cu N6 O8
CI CCS
SR CA
LC STN Files: CA, CAPLUS



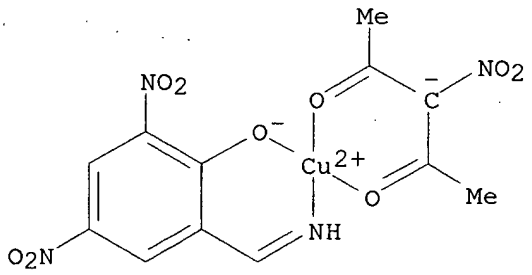
4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 37 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 76401-08-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-phenoxy-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-phenoxy-, copper complex
MF C22 H22 Cu O6
CI CCS
LC STN Files: CA, CAPLUS



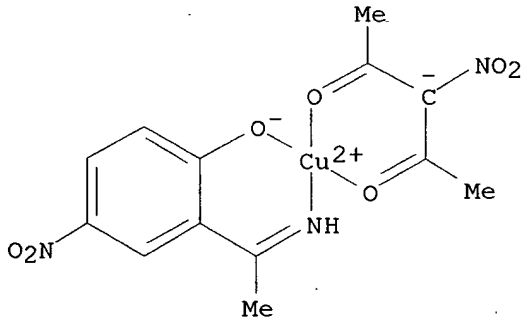
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 38 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 65888-28-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, [2-(iminomethyl)-4,6-dinitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
CN Phenol, 2-(iminomethyl)-4,6-dinitro-, copper complex
MF C12 H10 Cu N4 O9
CI CCS
LC STN Files: CA, CAPLUS



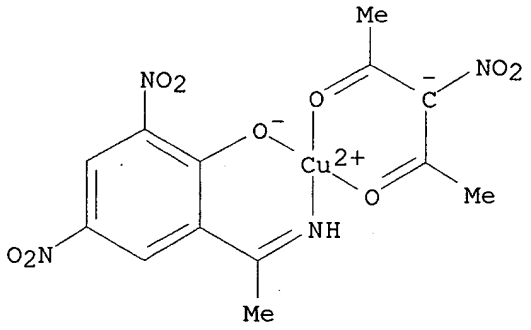
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 39 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 65588-32-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, [2-(1-iminoethyl)-4-nitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
CN Phenol, 2-(1-iminoethyl)-4-nitro-, copper complex
MF C13 H13 Cu N3 O7
CI CCS
LC STN Files: CA, CAPLUS



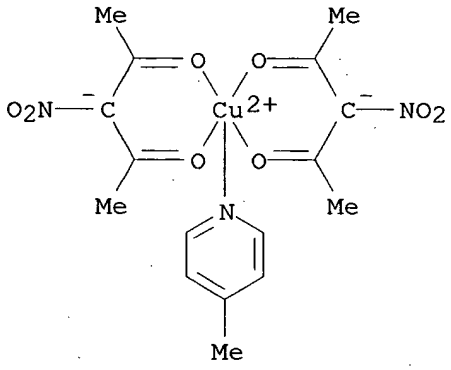
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 40 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 65588-31-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, [2-(1-iminoethyl)-4,6-dinitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
CN Phenol, 2-(1-iminoethyl)-4,6-dinitro-, copper complex
MF C13 H12 Cu N4 O9
CI CCS
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

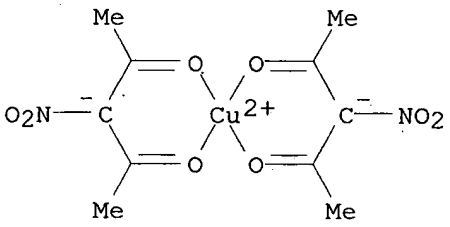
L3 ANSWER 41 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 55140-20-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, (4-methylpyridine)bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
MF C16 H19 Cu N3 O8
CI CCS
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

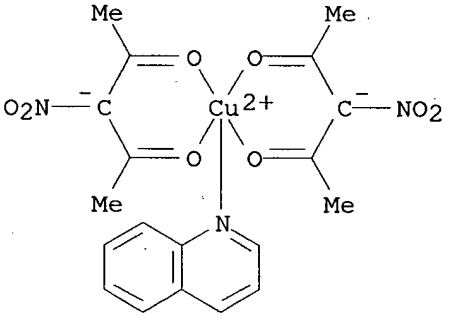
L3 ANSWER 42 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 53494-99-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-nitro-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-1)-
OTHER NAMES:

CN Bis(3-nitro-2,4-pentanedionato)copper
MF C10 H12 Cu N2 O8
CI CCS
LC STN Files: CA, CAPLUS, GMELIN*
(*File contains numerically searchable property data)



7 REFERENCES IN FILE CA (1907 TO DATE)
8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

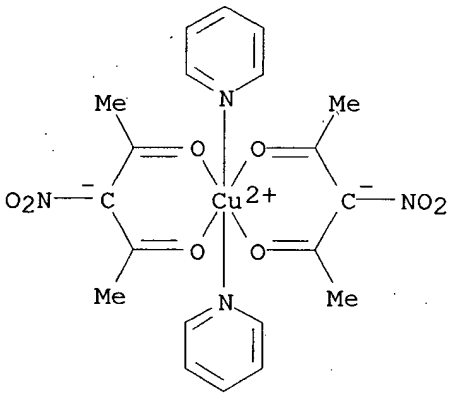
L3 ANSWER 43 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 41101-63-7 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)(quinoline)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
MF C19 H19 Cu N3 O8
CI CCS
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

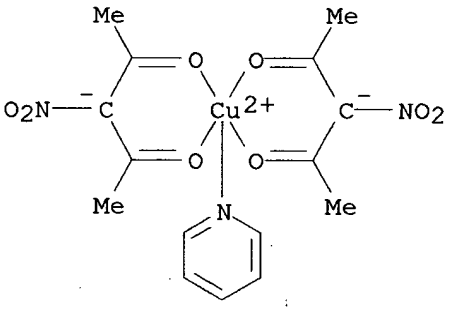
L3 ANSWER 44 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 36364-01-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)bis(pyridine)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
MF C20 H22 Cu N4 O8
CI CCS

LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

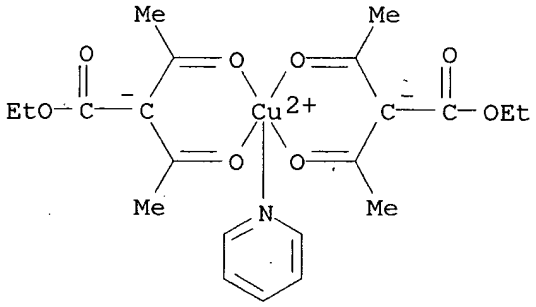
L3 ANSWER 45 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 36363-99-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)(pyridine)-, (SP-5-21)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
MF C15 H17 Cu N3 O8
CI CCS
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

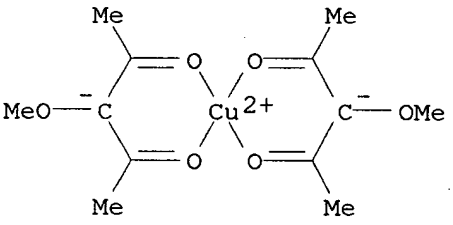
L3 ANSWER 46 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 36363-97-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(ethyl 2-acetyl-3-oxobutanoato-O2,O3)(pyridine)-, (SP-5-21)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanoic acid, 2-acetyl-3-oxo-, ethyl ester, copper complex

MF C21 H27 Cu N O8
CI CCS
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

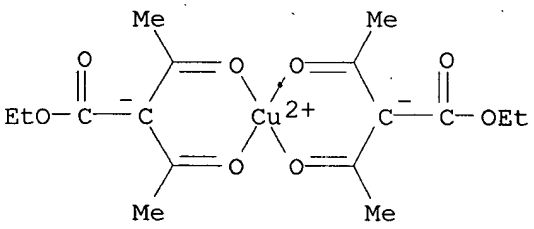
L3 ANSWER 47 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 27970-19-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-methoxy-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Copper, bis(3-methoxy-2,4-pentanedionato)- (7CI, 8CI)
OTHER NAMES:
CN Bis(3-methoxy-2,4-pentanedionato)copper
MF C12 H18 Cu O6
CI CCS
LC STN Files: CA, CAOLD, CAPLUS



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

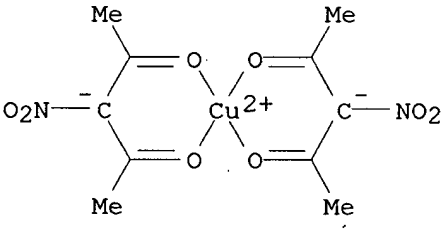
L3 ANSWER 48 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 15378-83-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis[ethyl 2-(acetyl-κO)-3-(oxo-κO)butanoato]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Copper, bis(hydrogen 2-acetylacetoacetato)-, diethyl ester (7CI, 8CI)
OTHER NAMES:

CN Copper bis(3-ethoxycarbonylacetylacetone)
MF C16 H22 Cu O8
CI CCS
LC STN Files: CA, CAOLD, CAPLUS, TOXCENTER



7 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 49 OF 49 REGISTRY COPYRIGHT 2007 ACS on STN
RN 14689-25-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4-Pentanedione, 3-nitro-, copper complex
CN Copper, bis(3-nitro-2,4-pentanedionato)- (7CI, 8CI)
OTHER NAMES:
CN Bis(3-nitroacetylacetonato)copper
CN NSC 338135
MF C10 H12 Cu N2 O8
CI CCS
LC STN Files: CA, CAOLD, CAPLUS, GMELIN*, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

27 REFERENCES IN FILE CA (1907 TO DATE)
27 REFERENCES IN FILE CAPLUS (1907 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> fil hcaplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION

FULL ESTIMATED COST 277.70 277.91

FILE 'HCAPLUS' ENTERED AT 17:55:47 ON 16 JAN 2007
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FILE COVERS 1907 - 16 Jan 2007 VOL 146 ISS 4
FILE LAST UPDATED: 15 Jan 2007 (20070115/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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       4345600 PREP/RL
L4          23 L3/PREP
                (L3 (L) PREP/RL)

=> d l4 1-23
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L4 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:271188 HCAPLUS
DN 140:295114
TI New fluorine-free metal complexes for gas-phase chemical deposition of metals
IN Doppelt, Pascal
PA Centre National de la Recherche Scientifique CNRS, Fr.
SO Fr. Demande, 21 pp.
CODEN: FRXXBL
DT Patent
LA French

Application

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2845088	A1	20040402	FR 2002-12059	20020930
	FR 2845088	B1	20041203		
	CA 2500386	A1	20040408	CA 2003-2500386	20030925
	WO 2004029061	A1	20040408	WO 2003-FR2820	20030925

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,

TI Preparation and reduction of bis-(3-nitro-2,4-pentanedione)-beryllium
AU Klein, Richard M.; Bailar, John C., Jr.
CS Univ. of Illinois, Urbana
SO Inorg. Chem. (1963), 2(6), 1187-90
DT Journal
LA Unavailable

L4 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1963:18976 HCAPLUS
DN 58:18976
OREF 58:3090h,3091a-b
TI The reactivity of coordinated acetylacetone
AU Djordjevic, C.; Lewis, J.; Nyholm, R. S.
CS Univ. Coll., London
SO Journal of the Chemical Society (1962) 4778-84
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable

=> d l4 1-23 bib abs hitstr

L4 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:271188 HCAPLUS
DN 140:295114
TI New fluorine-free metal complexes for gas-phase chemical deposition of metals
IN Doppelt, Pascal
PA Centre National de la Recherche Scientifique CNRS, Fr.
SO Fr. Demande, 21 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2845088	A1	20040402	FR 2002-12059	20020930
	FR 2845088	B1	20041203		
	CA 2500386	A1	20040408	CA 2003-2500386	20030925
	WO 2004029061	A1	20040408	WO 2003-FR2820	20030925
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	AU 2003276374	A1	20040419	AU 2003-276374	20030925
	EP 1551851	A1	20050713	EP 2003-798226	20030925
	EP 1551851	B1	20060802		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2006501280	T	20060112	JP 2004-539140	20030925
	AT 334990	T	20060815	AT 2003-798226	20030925

	US 2006121709	A1	20060608	US 2005-529569	20050929
PRAI	FR 2002-12059	A	20020930		
	WO 2003-FR2820	W	20030925		

OS MARPAT 140:295114

GI

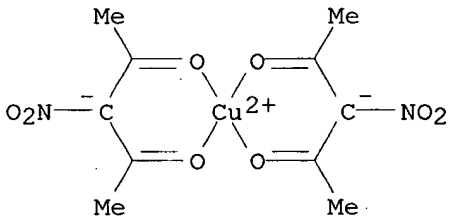
$M^{+1}(R'-CO-C(R)-CO-R'')^{-1}$ .L I

AB The invention has as an aim of new complexes of copper(I) or silver(I) and their use for chemical plating in gas phase of copper or silver metals practically free from impurities, complexes of structure I , in which M is Cu or Ag; R' and R", identical or different, represent a group chosen from among a C1-8 alkyl, a -OR''' group, in which R''' is C1-8 alkyl; R is a group chosen from among OR"", in which R"" is C1-8 alkyl, a nitro group NO2, an aldehyde function -CHO. an ester function -COOR"", in which R"" is C1-8 alkyl, and L is a ligand of stabilization.

IT 14689-25-9P 675200-68-7P 675200-69-8P
675200-70-1P 675200-71-2P 675200-72-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fluorine-free metal complexes for gas-phase chemical deposition of metals)

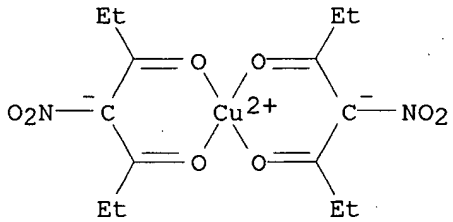
RN 14689-25-9 HCAPLUS

CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



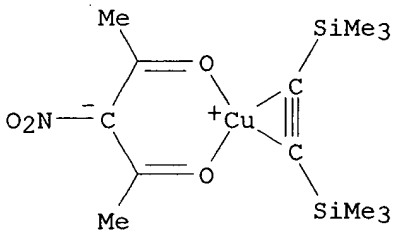
RN 675200-68-7 HCAPLUS

CN Copper, bis(4-nitro-3,5-heptanedionato-κO,κO')- (9CI) (CA INDEX NAME)

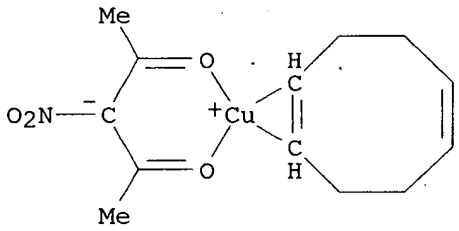


RN 675200-69-8 HCAPLUS

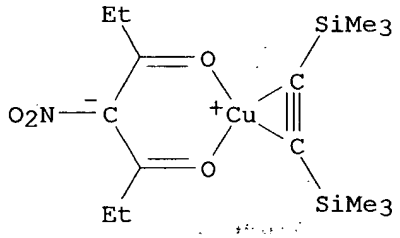
CN Copper, [(η2-1,2-ethynediyl)bis[trimethylsilane]](3-nitro-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



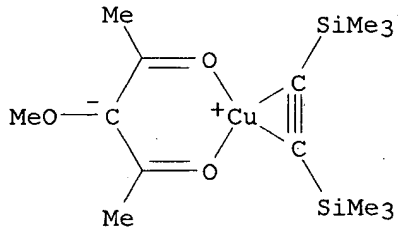
RN 675200-70-1 HCAPLUS
CN Copper, [(1,2-η)-1,5-cyclooctadiene](3-nitro-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 675200-71-2 HCAPLUS
CN Copper, [(η2-1,2-ethynediyl)bis[trimethylsilane]](4-nitro-3,5-heptanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 675200-72-3 HCAPLUS
CN Copper, [(η2-1,2-ethynediyl)bis[trimethylsilane]](3-methoxy-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

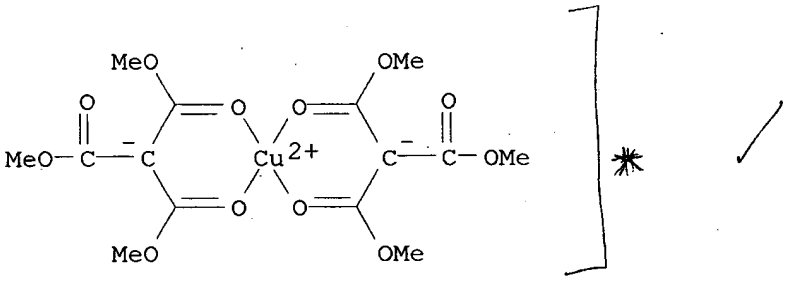
L4 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:160846 HCAPLUS
DN 135:28213
TI Synthesis and structural characterization of tricarbomethoxymethanate complexes of copper(II) and barium(II) and evaluation of their suitability for MOCVD applications
AU Baxter, David V.; Caulton, Kenneth G.; Chiang, Wen-Chung; Chisholm, Malcolm H.; DiStasi, Vincent F.; Dutremez, Sylvain G.; Martin, James D.; Streib, William E.
CS Department of Physics, Department of Chemistry and Molecular Structure Center, Indiana University, Bloomington, IN, 47405-7102, USA
SO New Journal of Chemistry (2001), 25(3), 400-407
CODEN: NJCHE5; ISSN: 1144-0546
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 135:28213
AB The reaction between Cu(OCH3)2 and HL [L = -C(CO2CH3)3] in THF gives a mixture of two products, CuL(OCH3) and CuL2(THF)2. CuL(OCH3) was characterized by elemental anal., IR spectroscopy and thermal decomposition studies, and its insoly. in THF, at room temperature, suggests that it may be polymeric. The solid state structure of CuL2(THF)2 was established via a single-crystal x-ray diffraction anal. This complex has a tetragonally distorted trans-disubstituted octahedral structure with L binding like a conventional bidentate β-diketonate ligand; the central CO2CH3 group of each L is not coordinated. CuL2(THF)2 readily loses the two THF mols. bound to the Cu(II) center upon drying in a stream of dinitrogen to produce THF-free CuL2. Alternatively, THF-free CuL2 can be prepared by the reaction of CuL(OCH3) with HL in refluxing toluene. X-ray crystallog. shows that CuL2 is a polymeric solid composed of a planar Cu(η2-L)2 repeat unit in which the central CO2CH3 group of each L binds weakly to the Cu(II) center of a neighboring unit along a "stepped" (displaced) stack of CuO4 units. The reaction between elemental barium and HL in THF requires activation with NH3(g). The product is a white solid of empirical formula BaL2·0.36THF. It was characterized by elemental anal., 1H NMR, 13C{1H} NMR, and IR spectroscopies, and thermal decomposition studies. It is insol. in common laboratory solvents but soluble in strong Lewis bases such as pyridine, DMSO, and hexamethylphosphoramide (HMPA). The product resulting from the depolymn. of BaL2·0.36THF with HMPA was characterized via a single-crystal x-ray diffraction anal. It is a dimer of empirical formula Ba2L4(HMPA)4. It consists of two BaL2(HMPA)2 fragments linked together, in a centrosym. fashion, by two μ2,η3-[-C(CO2CH3)3] ligands; this is made possible using the donor power of the pendant C(O)OCH3 group not used in CuL2(THF)2. The remaining two -C(CO2CH3)3 ligands are also bidentate but are nonbridging, and the four HMPA mols. are bonded through oxygen, resulting in a coordination number of seven for each barium. CuL2 is volatile and sublimes upon heating the amorphous material obtained from spontaneous desolvation of CuL2(THF)2, or polymeric CuL2, or CuL(OCH3) under high vacuum. The barium complexes are not volatile. Metallic copper was obtained upon heating the Cu(II) complexes to 1000° in a stream of argon, and formation of CuO results when these complexes are decomposed in the presence of oxygen. Thermal decomposition of BaL2·0.36THF and Ba2L4(HMPA)4 was carried out

under argon and O2-Ar atmospheres; residues containing varying amts. of BaO, BaO2 and BaCO3 were obtained depending on the exptl. conditions.

IT 342805-83-8P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(polymeric; preparation, crystal structure, sublimation and thermal decomposition)

RN 342805-83-8 HCAPLUS

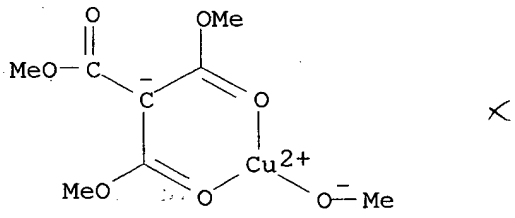
CN Copper, bis(trimethyl methanetricarboxylato-κO''',κO'''')-, (SP-4-1)- (9CI) (CA INDEX NAME)



IT 342805-80-5P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymeric; preparation, thermal decomposition and reaction with tri-Me methanetricarboxylate)

RN 342805-80-5 HCAPLUS

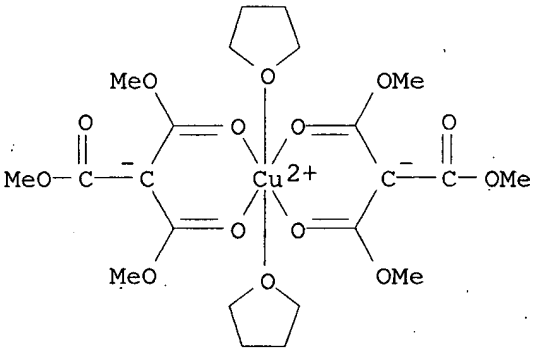
CN Copper, methoxy(trimethyl methanetricarboxylato-κO''',κO'''')- (9CI) (CA INDEX NAME)



IT 342805-82-7P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(preparation, crystal structure, sublimation and thermal decomposition)

RN 342805-82-7 HCAPLUS

CN Copper, bis(tetrahydrofuran)bis(trimethyl methanetricarboxylato-κO''',κO'''')-, (OC-6-11)- (9CI) (CA INDEX NAME)



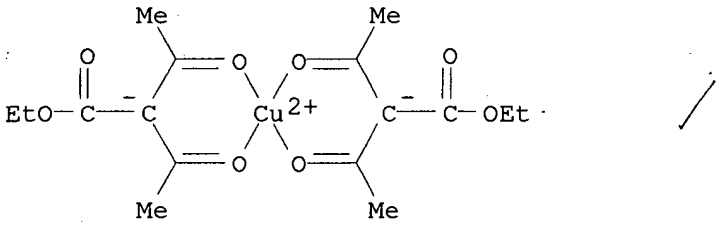
7

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:650912 HCAPLUS
DN 129:312138
TI Copper or zinc complex antimicrobial agents and antimicrobial polymer compositions containing them
IN Kijima, Ichiro; Wakeshima, Ikuko; Ashihara, Wataru; Arikawa, Shinsuke; Ishii, Yoikazu
PA Hoyu System K. K. JP Hoyu Systems K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

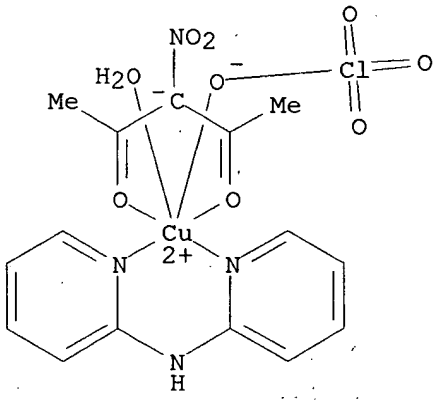
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10265310	A	19981006	JP 1997-85506	19970321
PRAI JP 1997-85506		19970321		

OS MARPAT 129:312138
AB Antimicrobial compns. contain coordination compds. of di- or tricarbonyl compds. HlC(COR1)m(CO2R2)n (l + m + n = 4; when l = 1, then the compound is a tricarbonyl compound; when l = 2, then the compound is a dicarbonyl compound; m is preferably ≥1) with Cu or Zn ions as active ingredients. The polymer compns. comprise 100 weight parts polymers and 0.001-10 weight parts of the antimicrobial agents. A food container from polypropylene containing 0.05 weight% Zn-acetylacetone complex (I; preparation given) showed higher antimicrobial effects against Escherichia coli and Staphylococcus aureus than a control containing Mg9ZnO10 instead of I. Applications of the antimicrobial complexes to disinfection of wastewater, fibers, and coatings are also exemplified.
IT 15378-83-3P, Copper bis(3-ethoxycarbonylacetylacetone)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antimicrobial Cu or Zn complexes with carbonyl compds. for polymer compns. and wastewater treatment)
RN 15378-83-3 HCAPLUS
CN Copper, bis[ethyl 2-(acetyl-κO)-3-(oxo-κO)butanoato]- (9CI) (CA INDEX NAME)

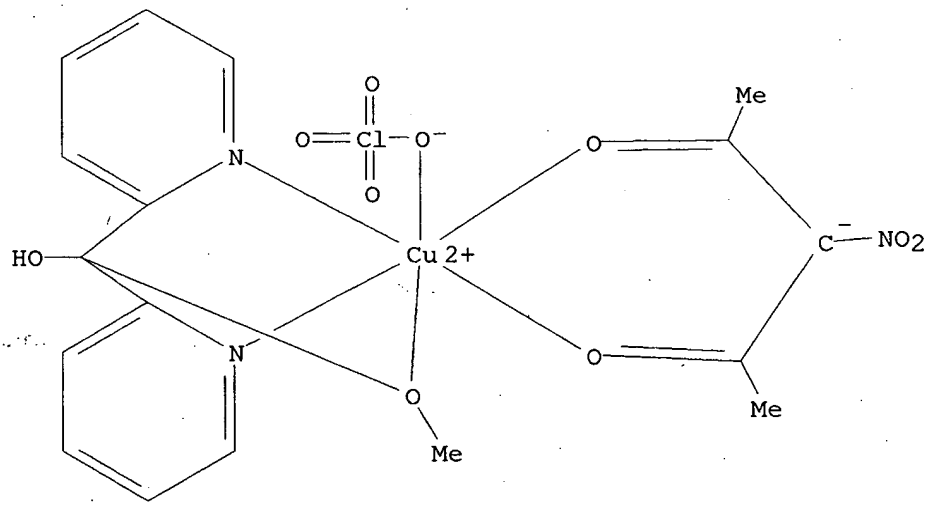


L4 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:331599 HCAPLUS
DN 129:11967
TI Influence of the Bridging Group of Cross-Conjugated Nitrogenous Bases on the Spectra and Structure of Solvatochromic Mixed-Ligand Copper(II) Chelates Containing β-Ketoenols
AU Tsiamis, Chris; Hatzidimitriou, Antonis G.; Tzavellas, Leandros C.
CS Department of Chemistry, University of Thessaloniki, Thessaloniki, 54006, Greece
SO Inorganic Chemistry (1998), 37(12), 2903-2909
CODEN: INOCAJ; ISSN: 0020-1669
PB American Chemical Society
DT Journal
LA English
AB The concomitant reaction of Cu(II) with a heterocyclic nitrogenous cross-conjugated Lewis base (2,2'-dipyridyl ketone, dpk, or 2,2'-dipyridylamine, dpamH) and the anion of a 2-substituted 1,3-dione, β-, e.g. X-acac- (X = H, Me, Cl, CN, NO2) affords mixed-ligand chelates. The composition and structure of the chelates depend on the group linking the pyridyl rings. Chelation renders the 2,2'-dipyridyl ketone susceptible to nucleophilic attack by protic mols. It also depends on the group attached to the β-dionato moiety since electron attracting substituents facilitate ligation of a H2O mol. when the 2,2'-dipyridylamine is present. Spectroscopic observations indicated square pyramidal or distorted tetragonal stereochemistries of the ensuing mixed-ligand chelates with the carbonyl oxygens and the pyridyl nitrogens forming the basal plane. Confirmation was acquired by x-ray structure determination of representative chelates. [Cu(NC-acac)dpamH(H2O) OClO3] crystallizes in the space group Pnma with Z = 8 (i.e. four mols. per cell), a 17.996(1), b 13.972(1), c 7.801(1) Å. The Cu atom is 2.401(3) Å from the O of the H2O mol. and 2.60(2) Å from an O atom of the ClO4- group. The chelate [Cu(NC-acac)dpC(OH)OCH3(OClO3)], resulting from the addition of MeOH to the C atom bridging the pyridyl rings, crystallizes in the space group P21/n with a 10.661(1), b 14.987(2), c 13.963(1) Å, β 110.57(3)°, Z = 4. An O of the ClO4- group is in apical position, and it is 2.634(8) Å from the Cu atom. The etheric O is distanced 2.615(2) Å from the Cu atom, and the O-Cu-O angle of these weak bonds is only 154.4(2)°. In these chelates the nitrogenous bases adopt the boat conformation with the pyridyl rings forming dihedral angles of .apprx.33°.
IT 207454-65-7P 207454-72-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and UV-vis. spectrum of)
RN 207454-65-7 HCAPLUS

CN Copper, aqua(3-nitro-2,4-pentanedionato-κO,κO')(perchlorato-κO)[N-(2-pyridinyl-κN)-2-pyridinamine-κN1]-, (OC-6-34)-(9CI) (CA INDEX NAME)



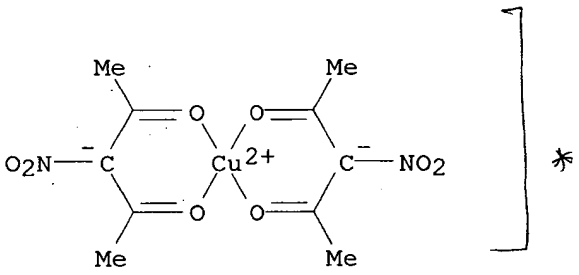
RN 207454-72-6 HCAPLUS
CN Copper, [α-(methoxy-κO)-α-(2-pyridinyl-κN)-2-pyridinemethanol-κN1](3-nitro-2,4-pentanedionato-κO,κO')(perchlorato-κO)-, (OC-6-34)- (9CI) (CA INDEX NAME)



RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:57648 HCAPLUS
DN 128:148808
TI Axial-equatorial interactions in chelates of β-diones. Crystal and molecular structure of bis(3-nitro-2,4-pentanedionato)copper(II)
AU Tsiamis, Chris; Stergiou, Anagnostis C.; Anesti, Vasileia; Blaton, Norbert

M.; Peeters, Ostwald M.
CS Department of Chemistry and Department of Physics, University of Thessaloniki, Thessaloniki, Greece
SO Inorganica Chimica Acta (1998), 269(2), 332-336
CODEN: ICHAA3; ISSN: 0020-1693
PB Elsevier Science S.A.
DT Journal
LA English
AB The preparation, IR spectrum and structure of bis(3-nitro-2,4-pentanedionato)copper(II), [Cu(O2N-acac)2], are reported. The structure was determined by single crystal x-ray diffraction anal. (triclinic, space group P.hivin.1, Z = 1, a 5.841(5), b 7.843(7), c 8.142(8) Å, α 80.40(7), β 74.59(7), γ 71.80(7)°, R1 = 0.0335, wR2 = 0.0809). The anion of 3-nitro-2,4-pentanedione, in addition to the commonly encountered bonds involving the carbonyl oxygens, also interacts with adjacent copper centers through one of the oxygen atoms of the -NO2 group at a distance of 2.609(2) Å and the structure becomes polymeric. The axial interactions in the CuO4O'2 chromophore are partly responsible for the elongation of the in-plane bonds. This is a rare example of a bis(β-dionato)copper(II) chelate in which copper(II) exists in a rhombically distorted octahedral environment.
IT 53494-99-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation, crystal structure and IR spectrum)
RN 53494-99-8 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:875502 HCAPLUS
DN 123:328439
TI Hybridization effects on the spectra and structure of solvatochromic copper(II) chelates containing β-diones and nitrogenous bases
AU Tsiamis, Chris; Youri-Tsochatzi, Catherine; Hatzidimitriou, Antony; Gourdon, Andre
CS Department of Chemistry, University of Thessaloniki, Thessaloniki, 54006, Greece
SO Inorganica Chimica Acta (1995), 237(1-2), 93-102
CODEN: ICHAA3; ISSN: 0020-1693
PB Elsevier
DT Journal
LA English

AB Cu(II) chelates containing a bidentate nitrogenous base (1,2-diamine or heteroarom. α-diimine, enR), the anion of a β-dione, β -, and the ClO4- group, [Cu(enR)β]ClO4, was prepared and characterized and the influence of hybridization of the N donor atoms on the spectra and structure of these compds. was assessed. The spectra (IR, ESR, electronic excitation) indicate that in the absence of steric interference, the CuN2O2 chromophore attains square planar geometry. The ESR observables suggest appreciable covalency. Changes in the structure occur because of the susceptibility of the coordinatively unsatd. [Cu(enR)β]+ entity to covalent interactions, which are enhanced as the hybridization of the N donor atoms changes from sp3 to sp2. The solvatochromism of the compds. implicates tetragonal distortions in strongly polar solvents and deformed square pyramidal structures in the presence of weakly coordinating anions or mols. Details of the structure of the [Cu(enR)β]+ entity and the conformation and configuration of the 1,2-diamines were gathered from the x-ray study of (1-(2-aminoethyl)pyrrolidine)(pentane-2,4-dionato)copper(II) perchlorate, [Cu(aep)acac]ClO4. The orthorhombic compound crystallizes in the Pna21 space group. The crystal data and the R value are: a 24.5370(7), b 8.4785(4), c 7.6720(3) Å, Vc = 1596(1) Å3, Z = 4, R = 0.0428 for 1099 observed unique reflections.

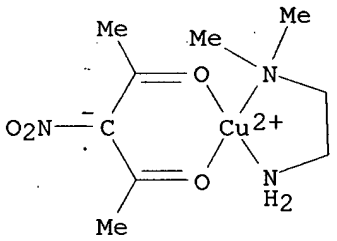
IT 152748-68-0P 170659-63-9P 170659-65-1P
170659-67-3P 170659-69-5P 170659-71-9P
170659-73-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and hybridization effects in solvatochromic copper dione nitrogenous base complexes)

RN 152748-68-0 HCAPLUS

CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

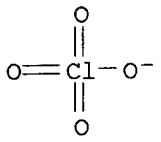
CM 1

CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



CM 2

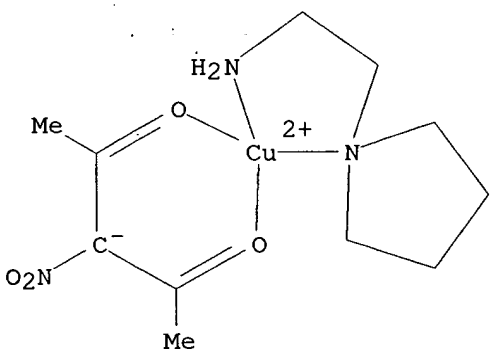
CRN 14797-73-0
CMF Cl O4



RN 170659-63-9 HCAPLUS
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1-pyrrolidineethanamine-Nα,N1)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

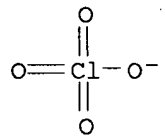
CM 1

CRN 170659-62-8
CMF C11 H20 Cu N3 O4
CCI CCS



CM 2

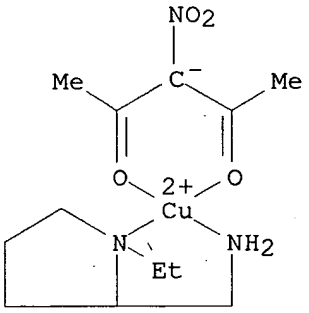
CRN 14797-73-0
CMF Cl O4



RN 170659-65-1 HCAPLUS
CN Copper(1+), (1-ethyl-2-pyrrolidinemethanamine-Nα,N1)(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

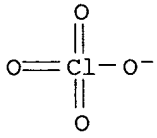
CM 1

CRN 170659-64-0
CMF C12 H22 Cu N3 O4
CCI CCS



CM 2

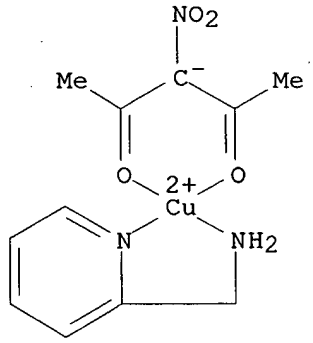
CRN 14797-73-0
CMF Cl O4



RN 170659-67-3 HCAPLUS
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(2-pyridinemethanamine-N1,N2)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

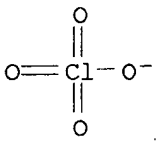
CM 1

CRN 170659-66-2
CMF C11 H14 Cu N3 O4
CCI CCS



CM 2

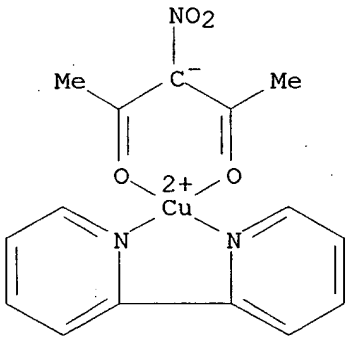
CRN 14797-73-0
CMF Cl O4



RN 170659-69-5 HCAPLUS
CN Copper(1+), (2,2'-bipyridine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

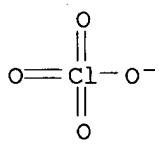
CM 1

CRN 170659-68-4
CMF C15 H14 Cu N3 O4
CCI CCS



CM 2

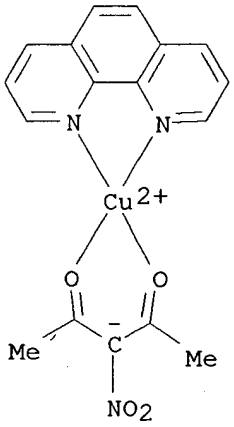
CRN 14797-73-0
CMF Cl O4



RN 170659-71-9 HCAPLUS
CN Copper(1+), (3-nitro-2,4-pentanedionato-O2,O4)(1,10-phenanthroline-N1,N10)-, (SP-4-2)-, perchlorate (9CI) (CA INDEX NAME)

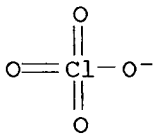
CM 1

CRN 170659-70-8
CMF C17 H14 Cu N3 O4
CCI CCS



CM 2

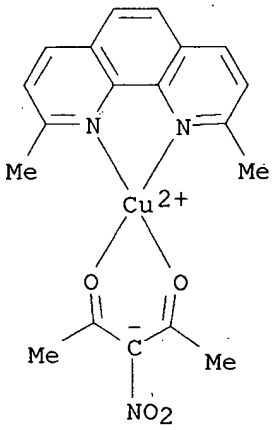
CRN 14797-73-0
CMF Cl O4



RN 170659-73-1 HCAPLUS
CN Copper(1+), (2,9-dimethyl-1,10-phenanthroline-N1,N10)(3-nitro-2,4-pentanedionato-O2,O4)-, perchlorate (9CI) (CA INDEX NAME)

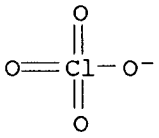
CM 1

CRN 170659-72-0
CMF C19 H18 Cu N3 O4
CCI CCS



CM 2

CRN 14797-73-0
CMF Cl O4



L4 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:123308 HCAPLUS
DN 120:123308
TI Counterion effects in the spectra and structure of solvatochromic copper(II) chelates containing 1,2-diamines and β-ketoenols
AU Tsiamis, Chris; Tzavellas, Leandros C.
CS Department of Chemistry, University of Thessaloniki, Thessaloniki, 54006, Greece
SO Inorganica Chimica Acta (1993), 207(2), 179-90
CODEN: ICHAA3; ISSN: 0020-1693
DT Journal
LA English
AB The concurrent reaction of Cu(II) salts with certain β-diones and N-substituted 1,2-diaminoethanes (enR) is reported. The influence of γ-position derivs. of 2,4-pentanedione (X-acacH; X = H, CN, NO2) is described, and the contribution of anions to the stability, the stereochem. and the electronic structure of the resulting mixed-ligand chelates is discussed. Spectroscopic observations disclose that the bidentate ligands form chelate rings with Cu(II) as common vertex. [Cu(β-dionato)enR]+ are virtually square-planar with CuN2O2 chromophore. Cu(II) coordination is unsatd. and in addition to electrostatic interactions that prevail when bulky polyat. anions counterbalance the pos. charge, it is capable of forming covalent bonds with neutral mols. and charged species such as the halides and pseudohalides. The basal CuN2O2 plane is distorted upon coordination of unidentate ligands residing

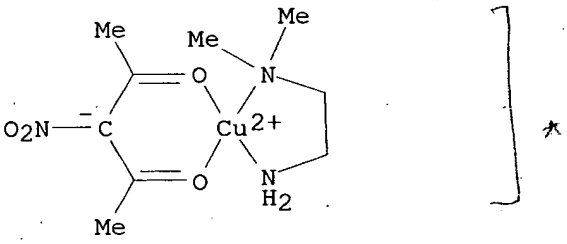
on the apex of the resulting square-pyramidal structure. Further increase in the coordination number of Cu(II) by bidentate anions or neutral mols. leads to tetragonally distorted octahedral structures. This change in the symmetry of the field induced on Cu(II) is revealed by spectral shifts that also disclose covalent interactions in the encounters of the CuN2O2 chromophore with polar or polarizable mols. These interactions are enhanced with increasing ability of the attacking species to act as an electron pair donor. Linear dependence of the ligand field excitation maximum on the donicity of the attacking species was established.

IT 152748-68-0P 152767-34-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and solvent effect in electronic spectra of)

RN 152748-68-0 HCAPLUS
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

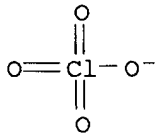
CM 1

CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



CM 2

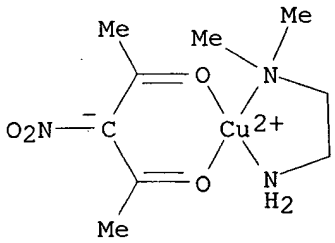
CRN 14797-73-0
CMF Cl O4



RN 152767-34-5 HCAPLUS
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-κN,κN')(3-nitro-2,4-pentanedionato-κO,κO')-, (SP-4-3)-, nitrate (9CI) (CA INDEX NAME)

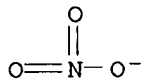
CM 1

CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



CM 2

CRN 14797-55-8
CMF N O3



L4 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:436490 HCAPLUS
DN 119:36490
TI Substituent and solvent effects in the spectra and structure of some mixed-ligand copper(II) chelates containing β-ketoenols
AU Tsiamis, Chris; Themeli, Maria
CS Department of Chemistry, University of Thessaloniki, Thessaloniki, 54006, Greece
SO Inorganica Chimica Acta (1993), 206(1), 105-15
CODEN: ICHAA3; ISSN: 0020-1693
DT Journal
LA English
AB The IR and the ligand-field excitation spectra of a series of new mixed-ligand copper(II) chelates that encompass N, N-dimethyl-N'-ethyl-ethylenediamine (dmeen) and the anion of a substituted β-ketoenol (1,3-dione) were obtained in the solid state and in solution Information related to the electronic excitation spectra, the IR spectra, the molar conductivity and the magnetic properties of the newly obtained and characterized chelates are presented and discussed. The molar conductivity in nitromethane reveals a predominance of electrostatic interactions between the [Cu(β-dione)dmeen]+ entity and bulky polyat. anions that counterbalance the pos. charge while the IR spectra disclose that the bidentate ligands form chelate rings with copper as the common vertex. The resulting CuN2O2 chromophore attains a square-coplanar structure and exhibits a tendency for axial ligation which is enhanced when electron-attracting substituents are attached to the β-dionato moiety. The tendency for axial ligation is partially fulfilled when suitable nucleophiles are present. Covalent interactions prevail when chloride is present and upon coordination it presumably occupies the apex of a square-pyramidal structure. Chain-like bidentate anions enable copper(II) to achieve coordination saturation and when configuration requirements demand it, they distort the square-planar arrangement of the

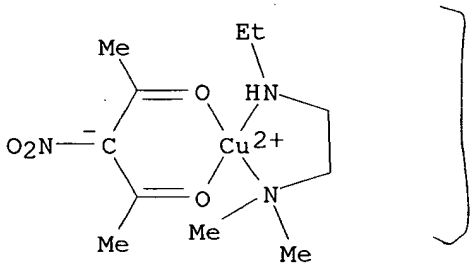
initial CuN2O2 chromophore forming distorted octahedral structures. Covalent solute-solvent interactions are revealed by shifts in the ligand-field excitation spectra that are enhanced as the nucleophilicity of the solvent increases. Linear dependence of the ligand-field excitation maximum on solvent parameters related to donor properties is generally observed

IT 148379-26-4P 148379-27-5P 148379-28-6P
RL: PREP (Preparation)
(preparation and IR spectra and ligand field excitation spectra of)

RN 148379-26-4 HCAPLUS
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

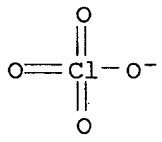
CM 1

CRN 148379-25-3
CMF C11 H22 Cu N3 O4
CCI CCS



CM 2

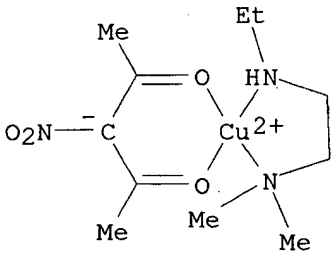
CRN 14797-73-0
CMF Cl O4



RN 148379-27-5 HCAPLUS
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, nitrate (9CI) (CA INDEX NAME)

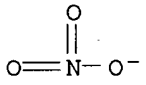
CM 1

CRN 148379-25-3
CMF C11 H22 Cu N3 O4
CCI CCS

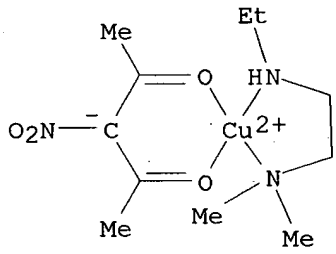


CM 2

CRN 14797-55-8
CMF N O3



RN 148379-28-6 HCAPLUS
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, chloride, (SP-4-3)- (9CI) (CA INDEX NAME)



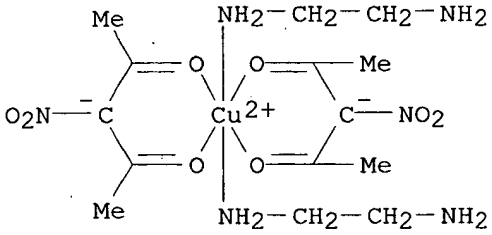
● Cl^-

L4 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:50258 HCAPLUS
DN 116:50258
TI Template reactions between bis(3-nitro-2,4-pentanedionato)copper(II) and α,ω-diaminoalkanes in N,N-dimethylformamide solution
AU Fujiwara, Manabu; Wakita, Hisanobu; Matsushita, Takayuki
CS Fac. Sci., Fukuoka Univ., Fukuoka, 814-01, Japan
SO Polyhedron (1991), 10(15), 1773-8
CODEN: PLYHDE; ISSN: 0277-5387
DT Journal
LA English
AB The 1:2 adducts of CuL2 (HL = 3-nitro-2,4-pentanedione) with ethylenediamine, 1,3-diaminopropane, and 1,4-diaminobutane were isolated

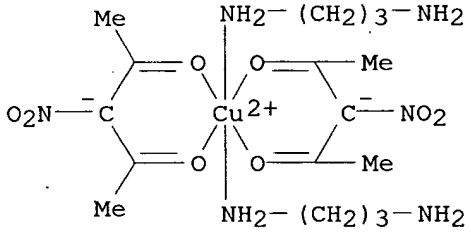
and characterized. These adducts are considered to be intermediates in the formation of the corresponding tetraaza macrocyclic complexes and a template reaction mechanism is proposed.

IT 110873-86-4P 138055-62-6P 138072-61-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

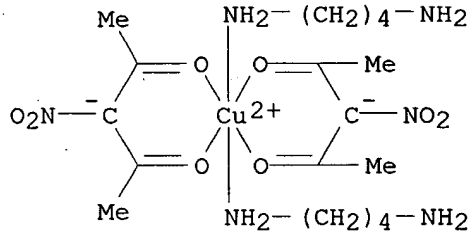
RN 110873-86-4 HCAPLUS
CN Copper, bis(1,2-ethanediamine-N)bis(3-nitro-2,4-pentanedionato-O2,O4)-(9CI) (CA INDEX NAME)



RN 138055-62-6 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)bis(1,3-propanediamine-N)-(9CI) (CA INDEX NAME)

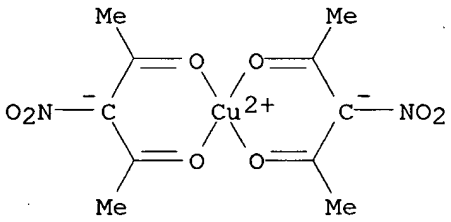


RN 138072-61-4 HCAPLUS
CN Copper, bis(1,4-butanediamine-N)bis(3-nitro-2,4-pentanedionato-O2,O4)-(9CI) (CA INDEX NAME)

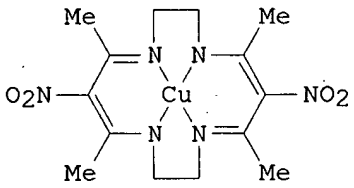


L4 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:451421 HCAPLUS
DN 113:51421
TI Preparation and physicochemical studies of some 3-substituted-2,4-pentanedionato copper(II) complexes and their adducts

AU Patel, K. S.; Woods, J. A. O.
CS Dep. Chem., Univ. Ibadan, Ibadan, Nigeria
SO Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry (1990), 20(1), 97-109
CODEN: SRIMCN; ISSN: 0094-5714
DT Journal
LA English
AB CuL2 (HL = 3-phenyl-, 3-benzyl-, 3-chloro-, and 3-nitro-2,4-pentanediones) and CuL2.Q (Q = 2,2'-bipyridine (bpy) and 1,10-phenanthroline; n = 1, 2) have been prepared and characterized by microanal., conductance, magnetic and spectral measurements. The available conductance data in NO2Me indicate that the complexes are nonelectrolytes while the room temperature magnetic moments suggest that they are magnetically dilute compds. The shifts observed in the ligand field spectral bands and the solvent dependence suggest plausible 4-, 5- and 6-coordinate geometries for these compds. The IR spectral shifts inferred the possibility of O-unidentate β-diketonate linkage and bidentate linkage of base. Square-planar and square-pyramidal stereochemistries have been proposed for the complexes and adducts, resp., except for Cu(Cl-acac)2(bpy)2 (Cl-acacH = 3-chloroacetylacetone) which is 6-coordinate octahedral.
IT 14689-25-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with bipyridine and phenanthroline)
RN 14689-25-9 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:589500 HCAPLUS
DN 107:189500
TI Template synthesis of a copper(II) complex with tetraaza macrocycle in solid phase
AU Fujiwara, Manabu; Kinoshita, Setsuko; Wakita, Hisanobu; Matsushita, Takayuki; Shono, Toshiyuki
CS Fac. Sci., Fukuoka Univ., Fukuoka, 814-01, Japan
SO Chemistry Letters (1987), (7), 1323-6
CODEN: CMLTAG; ISSN: 0366-7022
DT Journal
LA English
GI



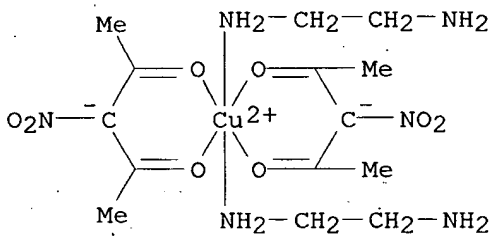
I

AB CuL2(en)2 (HL = 3-nitro-2,4-pentanedione) was prepared in EtOH and characterized by spectroscopic and elemental analyses. The thermal reaction of the adduct in the solid phase resulted in the formation of I by the intramol. condensation.

IT 110873-86-4P, Bis(ethylenediamine)bis(3-nitro-2,4-pentanedionato)copper
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and intramol. cyclocondensation reaction of)

RN 110873-86-4 HCAPLUS

CN Copper, bis(1,2-ethanediamine-N)bis(3-nitro-2,4-pentanedionato-O2,O4)-(9CI) (CA INDEX NAME)



L4 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:57314 HCAPLUS

DN 94:57314

TI The nucleophilic ring substitution of (3-bromo-2,4-pentanedionato)copper(II)

AU Kasuga, Kuninobu; Nagahara, Takeo; Yamamoto, Yasuo

CS Fac. Sci., Shimane Univ., Matsue, 690, Japan

SO Journal of Coordination Chemistry (1980), 10(4), 217-18
CODEN: JCCMBQ; ISSN: 0095-8972

DT Journal

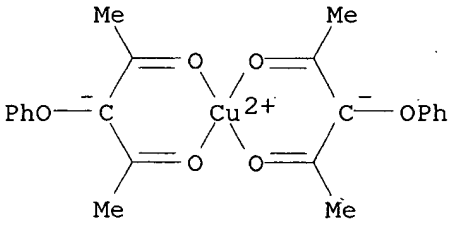
LA English

AB Whereas the Br atom of bis(3-bromo-2,4-pentanedionato)copper(II) could not be substituted by nucleophiles such as succinimide, phthalimide, phenol, and benzenethiol, the salts of these nucleophiles produced bis(3-substituted 2,4-pentanedionato)copper(II) complexes.

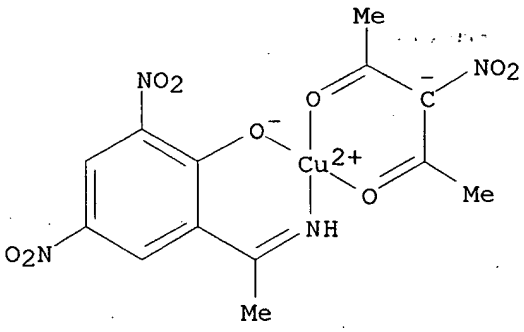
IT 76401-08-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by nucleophilic substitution reaction of bis(3-bromo-2,4-pentanedionato)copper)

RN 76401-08-6 HCAPLUS

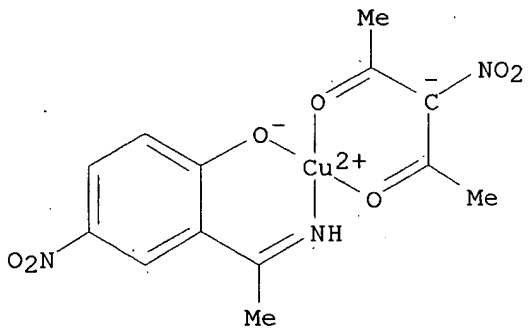
CN Copper, bis(3-phenoxy-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



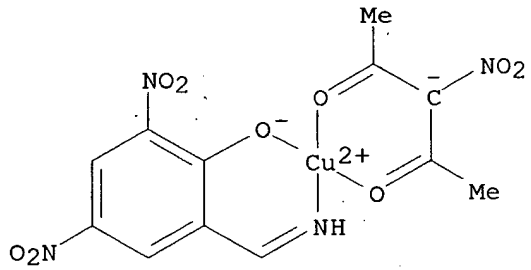
L4 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1978:114525 HCAPLUS
DN 88:114525
TI Nitration of some mixed ligand copper(II) complexes of acetylacetone, benzoylacetone, dibenzoylmethane and Schiff bases
AU Doraswamy, Uma; Bhattacharya, P. K.
CS Dep. Chem., Maharaja Sayajirao Univ. Baroda, Baroda, India
SO Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical & Analytical (1977), 15A(9), 828-9
CODEN: IJCADU; ISSN: 0376-4710
DT Journal
LA English
AB Nitration of the coordinated ligands in complexes of the type [CuLL'], where HL = salicylaldmine, 2-hydroxyacetophenonimine, or 2-hydroxy-3-methylacetophenonimide and HL' = acetylacetone, benzoylacetone, or dibenzoylmethane, was carried out. Trinitro compds. were obtained in all cases, except that of 2-hydroxy-3-methylacetophenonimine where a dinitro compound was obtained. The substitution products characterized by elemental anal., magnetic moments, conductance measurements, and IR spectral studies.
IT 65588-31-0P 65588-32-1P 65888-28-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 65588-31-0 HCAPLUS
CN Copper, [2-(1-iminoethyl)-4,6-dinitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



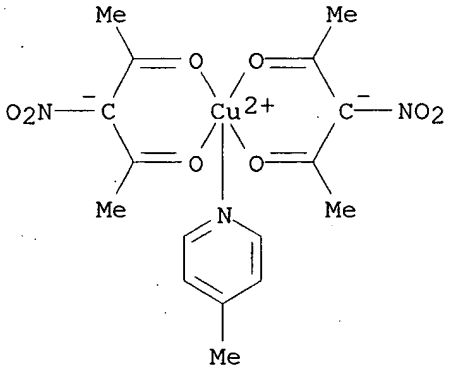
RN 65588-32-1 HCAPLUS
CN Copper, [2-(1-iminoethyl)-4-nitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



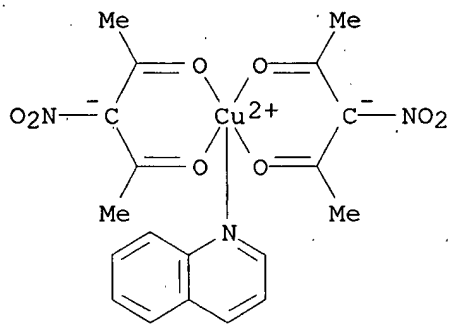
RN 65888-28-0 HCAPLUS
CN Copper, [2-(iminomethyl)-4,6-dinitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1975:179829 HCAPLUS
DN 82:179829
TI Adduct of copper(II) bis(nitroacetylacetonate) with γ-picoline
AU Mohapatra, B. K.
CS Dep. Chem., Ravenshaw Coll., Cuttack, India
SO Chemicke Zvesti (1974), 28(6), 757-9
CODEN: CHZVAN; ISSN: 0366-6352
DT Journal
LA English
AB Green crystalline [CuL2(γ-pic)], where HL = nitroacetylacetone and γ-pic = 4-picoline, was prepared and characterized by elec. conductivity, magnetic susceptibility, and ir and electronic spectra.
IT 55140-20-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 55140-20-0 HCAPLUS
CN Copper, (4-methylpyridine)bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)

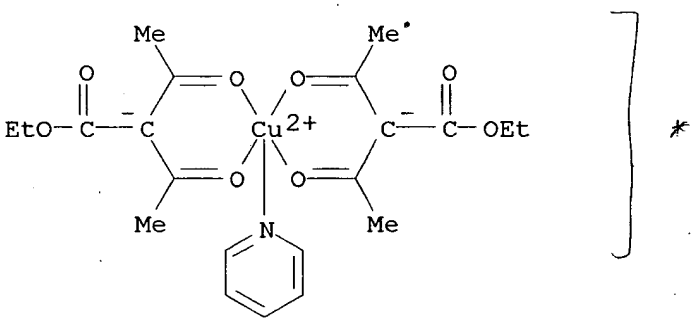


L4 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1973:143275 HCAPLUS
DN 78:143275
TI Pentacoordinated base adduct of copper(II) nitroacetylacetonate with quinoline
AU Mohapatra, B. K.
CS Dep. Chem., Ravenshaw Coll., Cuttack, India
SO Journal fuer Praktische Chemie (Leipzig) (1973), 315(2), 347-9
CODEN: JPCEAO; ISSN: 0021-8383
DT Journal
LA English
AB The green crystalline, nonelectrolytic (6.8 mho in Me2CO), paramagnetic (1 unpaired electron), pentacoordinated 1:1 complex (I) of Cu(II) bis(nitroacetyl-acetonate) with quinoline was prepared and characterized by ir and uv spectra. I was stable in air for a few days. A square pyramidal structure was established for the 1:1 Cu(II) bis(acetyl-acetonate) complex with quinoline (Ooi, S; Fernando, Q., 1967) and a similar structure is expected for I.
IT 41101-63-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 41101-63-7 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)(quinoline)- (9CI) (CA INDEX NAME)

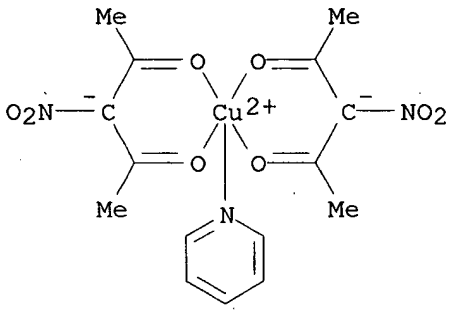


L4 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN

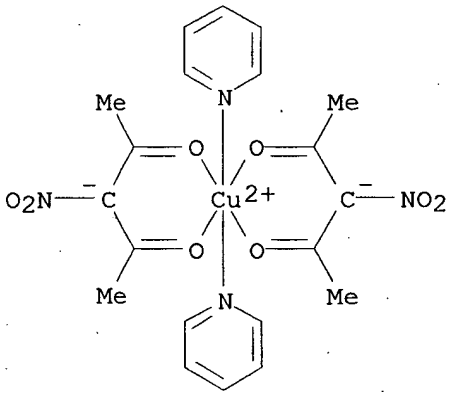
AN 1972:132200 HCAPLUS 16 of 23
DN 76:132200
TI Mono- and dipyridine adducts of bis(3-substituted 2,4-pentanedionato)copper(II) complexes
AU Shepherd, T. M.
CS Dep. Chem., Univ. St. Andrews, St. Andrews, UK
SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1972), (7), 813-16
CODEN: JCDTBI; ISSN: 0300-9246
DT Journal
LA English
AB Adduct formation consts., K1, for the equilibrium CuL2 + pyridine .dblharw. CuL2-(py) (L = AcCRAc; R = Me, H, Cl, Ac, CO2Et, CN, NO2) were determined in C6H6, Me2CO, and MeCN at 22°. The K1 values were correlated with the electronic nature of R and the dielec. constant of the solvent. For R = CN and NO2 further equilibrium CuL2(py) + pyridine .dblharw. CuL2(py)2 were observed in high pyridine concns. and the diadduct formation consts. were determined
IT 36363-97-0P 36363-99-2P 36364-01-9P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of)
RN 36363-97-0 HCAPLUS
CN Copper, bis(ethyl 2-acetyl-3-oxobutanoato-O2,O3)(pyridine)-, (SP-5-21)-(9CI) (CA INDEX NAME)



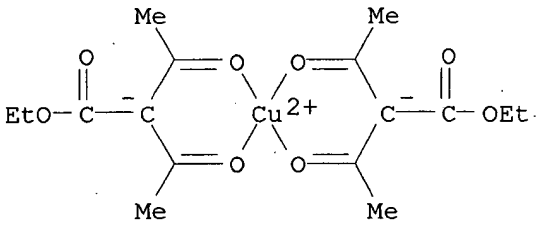
RN 36363-99-2 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)(pyridine)-, (SP-5-21)- (9CI) (CA INDEX NAME)



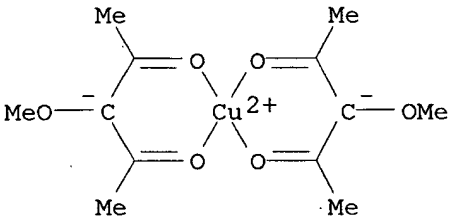
RN 36364-01-9 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)bis(pyridine)- (9CI) (CA INDEX NAME)



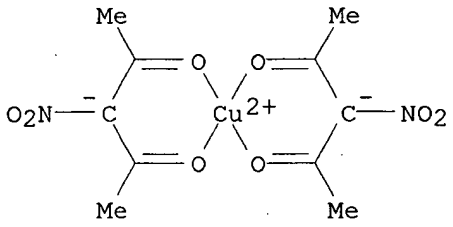
L4 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1970:31054 HCAPLUS
DN 72:31054
TI Tautomerism in 3-substituted-2,4-pentanediones and their copper chelates
AU Tanaka, Minoru; Shono, Toshiyuki; Shinra, Koichiro
CS Osaka Univ., Suita, Japan
SO Bulletin of the Chemical Society of Japan (1969), 42(11), 3190-4
CODEN: BCSJA8; ISSN: 0009-2673
DT Journal
LA English
AB Seventeen 3-substituted-2,4-pentanediones were synthesized. The effect of substituents in position 3 on the tautomeric equilibria, i.e., keto-, cis-enol-and trans-enol-forms, has been investigated by NMR spectroscopy. The percentage of each tautomer depends upon the electronic and steric effects of the substituents. The relative intensity of intramol. H bonds in these compds. was evaluated from both the NMR and ir data. The half-wave potential data of polarographic reduction and the Cu-O stretching frequencies of 16 copper chelates of 3-substituted-2,4-pentanediones indicate that the relative stability of the chelate decreases with an increase in the electron-withdrawing effect of the substituents.
IT 15378-83-3P 27970-19-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 15378-83-3 HCAPLUS
CN Copper, bis[ethyl 2-(acetyl-κO)-3-(oxo-κO)butanoato]- (9CI) (CA INDEX NAME)



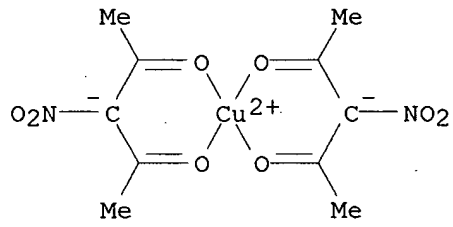
RN 27970-19-0 HCAPLUS
CN Copper, bis(3-methoxy-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1968:482976 HCAPLUS
DN 69:82976
TI A simple method for preparation of metal acetylacetonates and their nitro derivatives
AU Ebeid, F. M.; Rihan, T. I.; Hassanein, M.
CS Nat. Res. Centre, Dokki, Egypt
SO Arab Sci. Congr., 5th, Bagdad (1966), Issue Pt. 2, 279-85. Editor(s): El-Tahrir, Midan. Publisher: Amer. Univ. at Cairo, Cairo, UAR. CODEN: 20ARAH
DT Conference
LA English
AB By mixing the oxides of Al3+, Cr3+, Cu2+, and Mg2+ with acetylacetone at room temperature in the presence of proper solvents, the corresponding metal acetylacetonates were obtained directly in good yield. The solvents used for reaction and crystallization were: Et2O for Al2O3; hexane for Cr2O3; and Me2CO for CuO and MgO. Cr and Cu acetylacetonates undergo nitration with mild nitrating agents, e.g. Cu(NO3)2·3H2O. The mol. structures were confirmed by elemental anal., ir and uv spectra, m.p., and x-ray diffraction methods.
IT 14689-25-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 14689-25-9 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1967:101194 HCAPLUS
DN 66:101194
TI Chemical and spectroscopic studies in metal β-diketonates. II. Nitration of metal β-diketonates
AU Singh, Prithwi Raj; Sahai, Ram
CS Indian Inst. of Technol., Kanpur, India
SO Australian Journal of Chemistry (1967), 20(4), 649-55
CODEN: AJCHAS; ISSN: 0004-9425
DT Journal
LA English
AB cf. preceding abstract Bis(3-nitropentane-2,4-dionato)beryllium(II), -copper(II), and -palladium(II); tris(3-nitropentane-2,4-dionato)aluminum(III), -chromium(III), -manganese(III), -iron(III), and -cobalt(III); tetrakis(3-nitropentane-2,4-dionato)zirconium(IV); and tris(3-nitro-1,3-diphenylpropane-1,3-dionato)aluminum(III) and -chrominum(III) were prepared by the nitration of the resp. metal chelates of acetylacetone and 1,3-diphenylpropane-1,3-dione. Ferric nitrate, cobaltous nitrate, and nickel nitrate were used as nitrating agents for the 1st time. The nitro chelates were also prepared by a direct, single-step process by using metal nitrates, acetic anhydride, and the ligands. In several cases, metal replacement reactions were observed to be taking place in conjunction with nitration under nitration reaction conditions. Ir, uv, and visible electronic spectra were recorded and are discussed.
IT 14689-25-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 14689-25-9 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1967:65003 HCAPLUS
DN 66:65003

TI Simple method for preparation of metal acetylacetonates and their nitro derivatives

20 of 23

AU Ebeid, Fathi M.; Rihan, T. I.; Hassanein, M.

CS Natl. Res. Centre, Cairo, Egypt

SO Indian Journal of Chemistry (1966), 4(10), 451-2
CODEN: IJOCAP; ISSN: 0019-5103

DT Journal

LA English

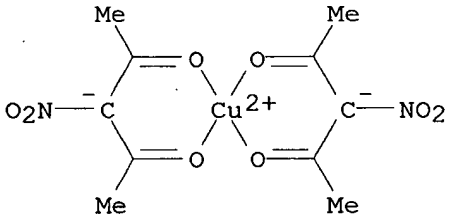
GI For diagram(s), see printed CA Issue.

AB Metal acetylacetonates(Ia) were obtained directly in good yields by mixing MeCOCH2COMe with an excess of a metal oxide at room temperature in the presence of a proper redistd. solvent. The rate of reaction could be accelerated by refluxing. Following are given the metal oxide used, reaction medium, and m.p. of the corresponding Ia: Al2O3, ether, 193° (ether) (λ 280 mμ); Cr2O3, hexane, 214-15° (hexane) (I) (λ 255-272, 335 mμ); CuO, Me2CO, -(sublimed) (II) (λ 293 mμ); MgO, Me2CO, 266-7° (λ 280 mμ). I and II were nitrated by using Cu(NO3)2.3H2O in Ac2O to yield the corresponding nitro derivs., m. 245° (ν 1200 cm.-1), and 193° (ν 1675 cm.-1), resp. Usual nitrating agents destroyed Ia. The results were in accordance with those of Collmann, et al. (CA 55, 9274c) and consequently confirmed the aromatic character of Ia.

IT 14689-25-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 14689-25-9 HCAPLUS

CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:454744 HCAPLUS

DN 63:54744

OREF 63:9975d-g

TI Aluminum nitrate and nitric acid as nitrating agents for acetyl-acetonates

AU Sen, D. N.; Thankarajan, N.

CS Nat. Chem. Lab., Poona

SO Indian Journal of Chemistry (1965), 3(5), 215-16
CODEN: IJOCAP; ISSN: 0019-5103

DT Journal

LA English

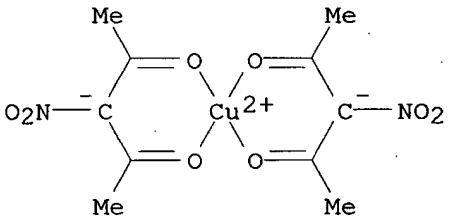
AB Tris(3-nitro-2,4-pentanediono)aluminum(I) was prepared in a single step process, by using Al(NO3)3 and acetylacetone (Ia) in Ac2O. Al(NO2)2 was also employed to prepare tris(3-nitro-2,4-pentane-diono)beryllium(II), which could not be prepared with Cu(NO3)2. Concentrated HNO3 was a good nitrating agent for the metals acetyl-acetonates. Thus, 3.75 g. powdered Al(NO3)3.9H2O was

added (30 min.) in 6 portions to a stirred and cooled mixture of 3 ml. Ia in 20 ml. Ac2O. The mixture was stirred 4 hrs. at room temperature, care being taken to see that the temperature did not rise. The solution was poured into .apprx.200 ml. ice-cold H2O containing NaOAc and left 1 hr. to give 2.3 g. I, m. 250° (C6H66). Powdered Al(NO33)3 (3.75 g.) was added slowly (as for I) to 3.5 g. Be acetylacetamate and 25 ml. Ac2O. Working up the reaction mixture yielded 2 g. II, m. 185.5°. Bis(3-nitro-2,4-pentanediono)copper (III) and tris(3-nitro-2,4-pentanediono)chromium(IV), m. 255°, were prepared in the same way as above from the resp. metal acetylacetonate, Al(NO33)3 and Ac2O. Attempted nitration of Be p-acetylacetonate using Cu(NO3)2 led to the isolation of III. Powdered Be acetylacetonate (3.1 g.) was added slowly (1 hr.) to a cooled and stirred solution of 3.7 g. Cu(NO33)2.3H2O in 30 ml. Ac2O. The solution was stirred 2 hrs. at room temperature and poured into cold-H2O to yield 3 g. III, m. 230-4° (decomposition), (40:60 EtOH-CHCl3). Concentrated HNO3 (16N; 2.2 ml.) was added dropwise to a cooled (0°) and stirred suspension of 3.25 g. Al acetylacetonate in 25 ml. Ac2O. The solution was stirred 1 hr. more at 0° and then 4 hrs. at room temperature Working up yielded 2.4 g.I. A discussion of nitrating agents and conditions is presented.

IT 14689-25-9P, Copper, bis(3-nitro-2,4-pentanedionato)-
RL: PREP (Preparation)
(preparation of)

RN 14689-25-9 HCAPLUS

CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1964:7612 HCAPLUS

DN 60:7612

OREF 60:1311f

TI Preparation and reduction of bis-(3-nitro-2,4-pentanedione)-beryllium

AU Klein, Richard M.; Bailar, John C., Jr.

CS Univ. of Illinois, Urbana

SO Inorg. Chem. (1963), 2(6), 1187-90

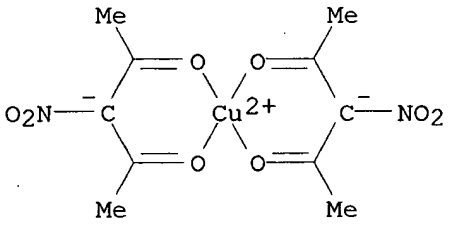
DT Journal

LA Unavailable

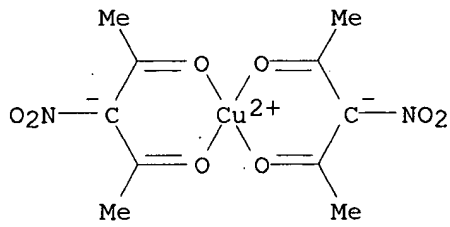
AB The reaction of 2,4-pentanedione with Be nitrate trihydrate in Ac2O gave bis-(3-nitro-2,4-pentanediono)beryllium. This was reduced catalytically to the corresponding amine. Bis-(2,4-pentanediono)beryllium reacted in this nitrating medium to yield a polymeric nitrated complex containing hydroxo bridges. This was converted to either the methoxo or ethoxo bridged complexes by boiling in MeOH or EtOH. These were shown by mol. weight studies to be partially trimeric.

IT 14689-25-9P, Copper, bis(3-nitro-2,4-pentanedionato)-

RL: PREP (Preparation)
(preparation of)
RN 14689-25-9 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



L4 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1963:18976 HCAPLUS
DN 58:18976
OREF 58:3090h,3091a-b
TI The reactivity of coordinated acetylacetone
AU Djordjevic, C.; Lewis, J.; Nyholm, R. S.
CS Univ. Coll., London
SO Journal of the Chemical Society (1962) 4778-84
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
AB The reactivity of acetylacetone, coordinated to a metal atom, with various reagents was investigated. The complexes of Cu, Ni, Pt, and Al yield γ-nitro-substituted complexes with N2O4. NOCl yields nitroso or chloro complexes, depending on the conditions employed. Nitrite ions in the presence of NH3 at pH 7 yield iminoacetylacetone derivs. of Ni and Pd; these are typical diamagnetic, square complexes. IR spectra were used extensively to identify the substituted groups present and to assign structures to the complexes isolated. Several unusual types of synthetic organic reactions dependent on the fact that the acetylacetone is coordinated to a metal atom were identified.
IT 14689-25-9P, Copper, bis(3-nitro-2,4-pentanedionato)-
RL: PREP (Preparation)
(preparation of)
RN 14689-25-9 HCAPLUS
CN Copper, bis(3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



10529569 FlourineFreeMetallicComplexes for GasPhaseChemDepo

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L2             2 S L1 SAM
L3            49 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 17:55:47 ON 16 JAN 2007
L4            23 S L3/PREP

=> save l1-l4
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